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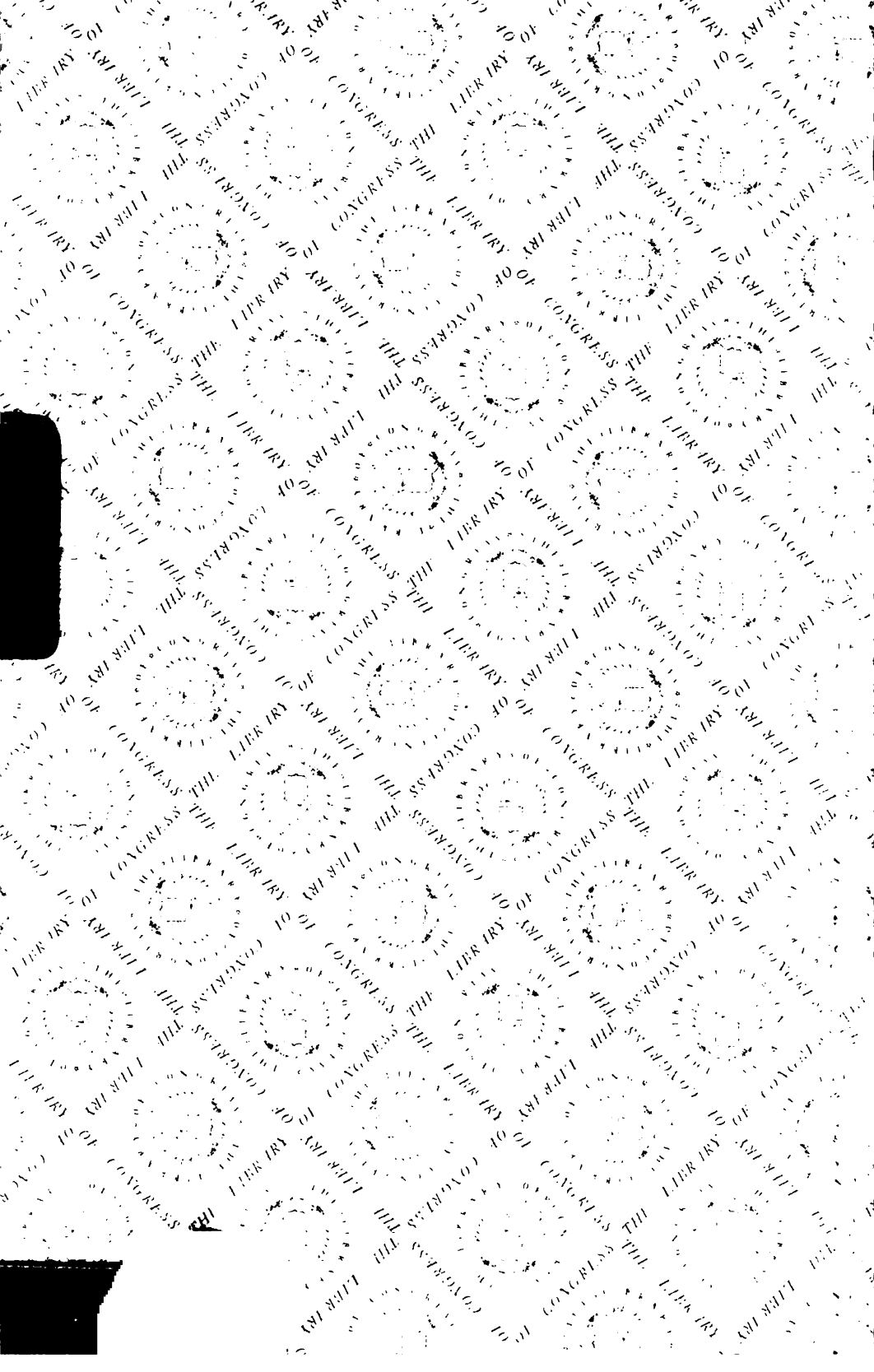
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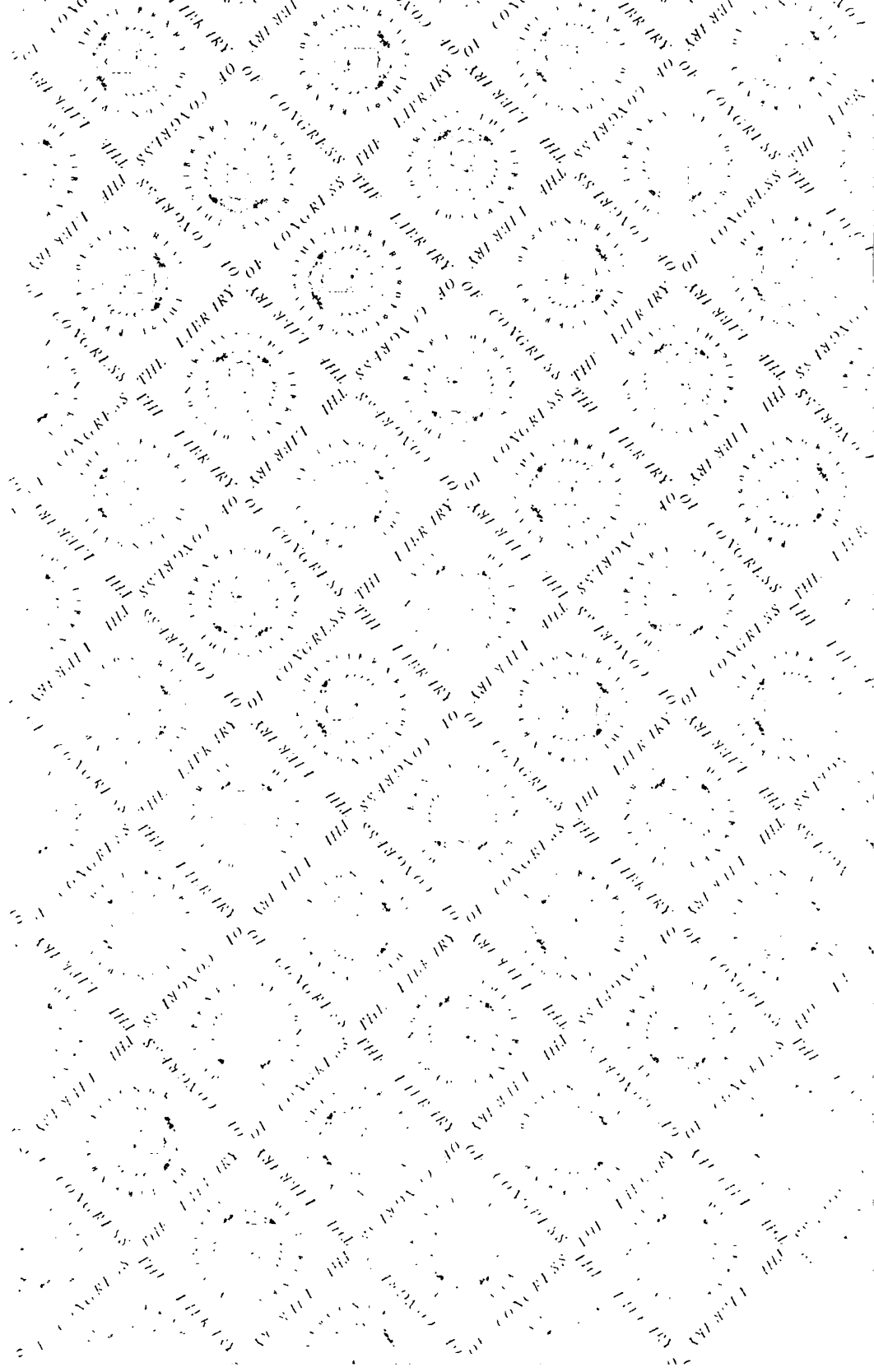
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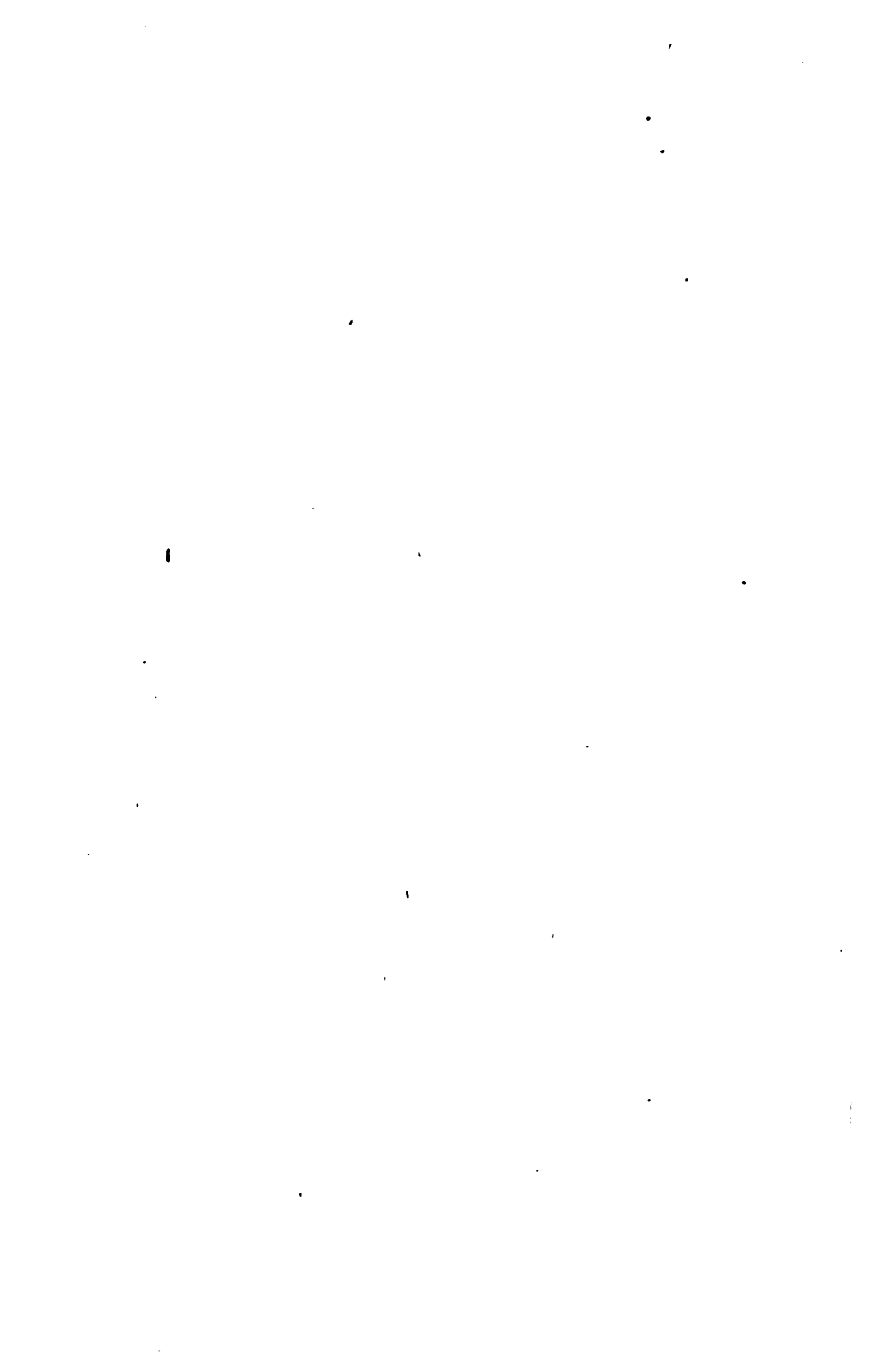
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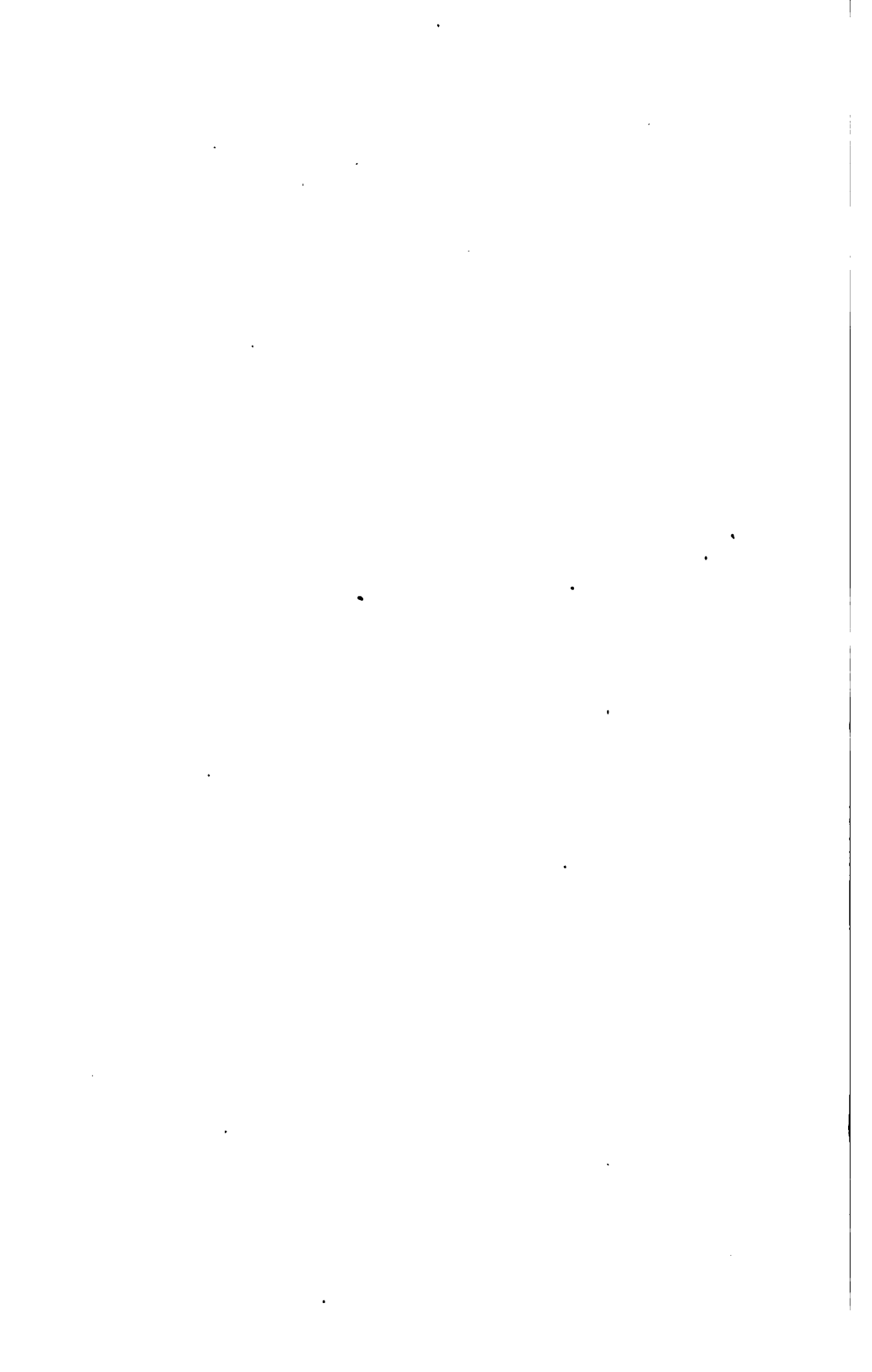
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HEARINGS

BEFORE THE

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COMMITTEE ON NAVAL AFFAIRS

OF THE

HOUSE OF REPRESENTATIVES

ON

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[No. 1.]

**BUREAU OF NAVIGATION—STATEMENT OF REAR-ADMIRAL
GEORGE A. CONVERSE.**

COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C., December 10, 1906.

The committee met at 10.30 a. m., Hon. George E. Foss (chairman) in the chair.

The CHAIRMAN. We start in with pay of the Navy, "Pay and allowances prescribed by law of officers on sea duty." I see this year you have stricken out the next three words, "officers on shore."

Admiral CONVERSE. Yes.

The CHAIRMAN. What is the reason for that?

Admiral CONVERSE. The abolishing of the distinction or discrimination of 15 per cent less pay on shore makes the pay on shore the same as the pay on sea duty, and that renders those words unnecessary.

The CHAIRMAN. There seems to be no change, then, in last year's law until we get down to page 3, where the number of men is 37,500 instead of 34,500, an increase of 3,000.

Admiral CONVERSE. That is what we asked for last year, but it was not granted.

The CHAIRMAN. How are you in the matter of enlistments of men?

Admiral CONVERSE. About 4,500 short now, just at present. But we have established more recruiting stations than we have had before, and the recruiting should begin to yield better results from this time on.

The CHAIRMAN. Do you think you will need this full increase of 3,000 men this coming year?

Admiral CONVERSE. That will depend very much on circumstances. There are a great many causes which are influencing and retarding the increase, among which is desertion, just at the present time. First, you may say, is the prosperity of the country. The second is the law which requires all persons under 18 years of age presenting themselves for enlistment to produce a certificate of age or evidence other than their own statements that they are of the age required. Then there are the unfortunate reports that have been published in the papers in regard to mutinies, and so forth, on board ship—notably that recently on the *Tennessee*—absolutely without foundation, absolutely, but published in the South with very large headlines. Columns were devoted to it, and it has practically stopped enlistments there. Other causes have influenced or retarded enlistments.

We have here in my annual report the number of applicants we received in the various cities throughout the United States, the number that we rejected for various causes, the number that failed to present themselves for enlistment after having passed because many of them could not produce certificates of birth, and finally, the number that were accepted. We had altogether last year 40,918 applicants for enlistment, of whom we really enlisted only 13,418, rejecting the others for various causes—physical disability, undesirability, inability to produce a good record, etc.

Mr. LOUDENSLAGER. What was the number enlisted?

Admiral CONVERSE. Thirteen thousand four hundred and eighteen.

The CHAIRMAN. This is in your report?

Admiral CONVERSE. Yes, sir.

Mr. LOUDENSLAGER. How many were discharged and deserted during the year?

Admiral CONVERSE. The total number of discharges, retirements, and deaths was 8,701.

Mr. KITCHIN. Can you tell how many were desertions?

Admiral CONVERSE. Yes, sir. The total number of desertions was 3,998. The percentage of desertions based on the total number of men in the service was 9.04 per cent.

Mr. LOUDENSLAGER. Three thousand nine hundred and ninety-eight?

Admiral CONVERSE. Yes.

Mr. LOUDENSLAGER. Which made a little over 9 per cent?

Admiral CONVERSE. Yes; 44,222 was the total number of men in the Navy.

Mr. LOUDENSLAGER. That was the total number of men in the Navy?

Admiral CONVERSE. Yes. We had when we started in at the beginning of the year 32,000, and we enlisted something like 13,000 additional men. We have to take into consideration all those new men who had an opportunity to desert. That is the way the percentage is worked out. The total number of men who enlisted during the year plus the number that we had at the beginning of the fiscal year was taken and the percentage of desertions figured out on that basis. The number of desertions is given in my report by ships and stations.

Mr. LOUDENSLAGER. You have not any of those reports here?

Admiral CONVERSE. Yes; they have been sent to every member of the committee.

Mr. KITCHIN. How many men are there in the Navy now?

Admiral CONVERSE. About 32,000—a little over 32,000. We are lower just now than for some time on account of the withdrawing of two of our heavy ships from China and bringing them home with men whose terms of service have expired. The *Ohio* and the *Wisconsin* brought home 800 men each, and they have been discharged. Most of them were overtime, and the remainder were short-service men.

Mr. LOUDENSLAGER. I understood you—perhaps misunderstood you—that you had an authorization of 4,500 more men than you have enlisted.

Admiral CONVERSE. Yes; more than we have got.

Mr. LOUDENSLAGER. How would that make 32,000 in the service, then?

Admiral CONVERSE. Because we are entitled to 37,000 men—the authorized enlisted men and apprentices at training stations as well as in the active fleet.

Mr. KITCHIN. Let me ask you right there, how many men will be necessary when you complete the ships that we now have?

Admiral CONVERSE. That was in my report of last year, and it has not materially changed since then. There has been hardly any change. To man the active fleet as it will stand when the vessels now authorized are built will require 37,283 men, the first reserve 3,309, and on shore stations 1,219, making a total of 41,811. That contemplates putting in reserve a large number of the ships which have been in commission or have been built since 1894.

The CHAIRMAN. Can you put those details in your hearing?

Admiral CONVERSE. Yes, sir. The appended table will show the number of enlisted men which will be required when the ships now under construction are completed.

A. Active fleet.....	37,283
B. First reserve.....	3,309
C. Shore stations.....	1,219
Total.....	41,811
To put ships of first reserve in commission and man all collars with naval crews, add.....	7,827
To put ships of second reserve in commission, add.....	1,986
Men in training, in transit, and in hospitals (sick).....	8,250
Grand total.....	59,874
Under present law the enlistment force allowed is.....	37,000
Shortage January 1, 1908.....	22,874
Add for battle ships <i>South Carolina</i> and <i>Michigan</i> appropriated for, to be completed about January 1, 1910.....	1,600
Total shortage, 1910.....	24,474

Mr. LOUDENSLAGER. I would like to ask you a question. The Admiral said some time ago why they were unable to have a greater enlistment in the Navy, naming the causes that operated against it.

The CHAIRMAN. I suggest that that would come up later under the suggestions on recruiting.

Mr. LOUDENSLAGER. Very well.

The CHAIRMAN. On page 4 we find this proviso:

Provided, That section seventeen of an act approved March third, eighteen hundred and ninety-nine, to reorganize and increase the efficiency of the personnel of the Navy and Marine Corps of the United States, which section reads as follows: "And *provided further*, That applicants for retirement under this section shall, unless physically disqualified for service, be at least fifty years of age," be, and the same is hereby, repealed.

Admiral CONVERSE. Yes, sir.

The CHAIRMAN. Will you kindly explain the purport of that provision.

Admiral CONVERSE. A boy enters the naval service as an apprentice at 15 years old and he will have to serve for thirty-five years before he retires. A man who enters the service at 25 years of age has only to serve twenty-five years before he can retire. Therefore it works a great injustice against the man who entered the service young.

Mr. MUDD. Would you not want to have some law regulating that?

Admiral CONVERSE. We want to have stricken out this provision in regard to 50 years of age.

Mr. LOUDENSLAGER. What would it be then? What would the law be then for retirement?

Admiral CONVERSE. For so many years' service.

Mr. MUDD. Is there any provision of existing law regulating that, if this be stricken out?

Admiral CONVERSE. The following addition has been added to the language of the act to regulate retirements of enlisted men hereafter:

Provided, That section 17 of an act approved March 3, 1899, to reorganize and increase the efficiency of the personnel of the Navy and Marine Corps of the United States, which section reads as follows: "*And provided further*, That applicants for retirement under this section shall, unless physically disqualified for service, be at least fifty years of age." be, and the same is hereby, repealed.

The Bureau considers that the requirement that an enlisted man, unless physically disqualified for service, must be 50 years of age before becoming entitled to the privileges of retirement works a great injustice to the men of the Navy in comparison with the practice now prevailing in the Army and Marine Corps. In those two branches a man may retire after a service of thirty years without regard to his age, and, further, in computing this period of service time spent aboard ship or abroad counts double, which last privilege is not afforded the Navy.

Mr. LOUDENSLAGER. Then there would be no regulation in regard to the retirement if this was repealed?

Admiral CONVERSE. Yes.

Mr. LOUDENSLAGER. Does it apply to the Navy?

Admiral CONVERSE. I think it does.

Mr. LOUDENSLAGER. You did not read it there. You read what applied to the Army and Marine Corps.

Admiral CONVERSE. It was my proposition to repeal that part of the act of March 3, 1899 requiring that applicants for retirement shall be 50 years of age. If we can get that act, we can see exactly how it reads. What we want is to put the Navy on an equality with the Army and the Marine Corps.

The CHAIRMAN. Would this do it?

Admiral CONVERSE. Yes.

Mr. LOUDENSLAGER. In this particular feature?

Admiral CONVERSE. Yes. Section 17 of the personnel bill reads as follows:

SEC. 17. That when an enlisted man or appointed petty officer has served as such thirty years in the United States Navy, either as an enlisted man or petty officer, or both, he shall, by making application to the President, be placed on the retired list hereby created, with the rank held by him at the date of retirement; and he shall thereafter receive seventy-five per centum of the pay and allowances of the rank or rating upon which he was retired: *Provided*, That if said enlisted man or appointed petty officer had active service in the Navy or in the Army or Marine Corps, either as volunteer or regular, during the civil or Spanish-American war, such war service shall be computed as double time in computing the thirty years necessary to entitle him to be retired: *And provided further*, That applicants for retirement under this section shall, unless physically disqualified for service, be at least fifty years of age.

That last proviso does not, I believe, apply either in the Army or the Marine Corps. It works injustice to the young men of the Navy.

Mr. LOUDENSLAGER. It occurs to me that this would mean that the

whole section would be repealed, would it not, and we should make it apply only to that part of section 17 which reads so-and-so?

The CHAIRMAN. The words "that part of" should be inserted before the words "section 17."

Mr. LOUDENSLAGER. Yes.

Admiral CONVERSE. Yes.

The CHAIRMAN. The next is "Pay, miscellaneous." That is the Paymaster-General's affair, is it?

Admiral CONVERSE. Yes.

The CHAIRMAN. Then we pass over to page 12:

Bureau of Navigation. Transportation, recruiting and contingent. Transportation: For travel allowance of enlisted men discharged on account of expiration of enlistment.

That is new language.

Admiral CONVERSE. Yes, sir.

The CHAIRMAN. Will you kindly explain that.

Admiral CONVERSE. This additional clause is inserted in order that the proviso in the current act authorizing the payment of 4 cents a mile to enlisted men on discharge or expiration of enlistment may be omitted. It is not necessary that this proviso be continued in the act, and the additional clause above quoted is recommended as a substitute. Before the law was passed giving men discharged on account of expiration of enlistment 4 cents a mile they were allowed actual expenses to the place of enlistment. Now they are on an equality with the Army and the Marine Corps so far as receiving mileage is concerned.

The CHAIRMAN. Was that done last year?

Admiral CONVERSE. Yes.

Mr. LOUDENSLAGER. Which way is the most expensive?

Mr. KITCHIN. This is the law now, so that it does not make any difference about which is the most expensive.

Admiral CONVERSE. We are paying more for transportation this year than last year. We have not been able to make the special rates with various transportation companies that we were able to make prior to July 1.

The CHAIRMAN. You are asking for an increase in this provision?

Admiral CONVERSE. Yes.

The CHAIRMAN. Last year we appropriated \$380,000, and this year you are asking for \$450,000, an increase of \$70,000. What does that arise from?

Admiral CONVERSE. A very considerable increase in this appropriation is absolutely necessary from the fact that although the railroad rates, which apply to private transportation both as regards passengers and freight, are probably less than heretofore, the Government has not succeeded in procuring the favorable rates it has had in contracts for previous years, and in fact in many instances the rates which apply to Government transportation are the same as those which govern private transportation.

Another reason for the necessity in increasing the appropriation for transportation is the fact that at the present time the greater number of enlistments occur at interior points in the country, and the transportation of recruits to the seaboard has added greatly to the expenditures under this appropriation.

Also all these estimates are based on the strength of 40,000 men.
The CHAIRMAN. Can we safely reduce that recommendation, \$450,000?

Admiral CONVERSE. Not if you give us 40,000 men.

The CHAIRMAN. If we should reduce the number of men, of course we could reduce the amount of this appropriation, then, could we?

Admiral CONVERSE. Yes; but only a small amount. Certain of these increases—

Mr. LOUDENSLAGER. To get the maximum of your 40,000 you will have to double the enlistment which you had this year?

Admiral CONVERSE. Yes.

Mr. LOUDENSLAGER. Which is not probable, is it?

Admiral CONVERSE. It depends on the condition of the crops they have out west and the demand for labor, and also on the repeal of the law requiring a birth certificate before enlistment.

Mr. LOUDENSLAGER. You think it is possible?

Admiral CONVERSE. I think it is possible; yes, sir. We are endeavoring to offer additional inducements to men to enter and remain in the Navy.

The CHAIRMAN. The next is—

Recruiting: Expenses of recruiting for the naval service; rent of rendezvous and expenses of maintaining the same; advertising for and obtaining men and apprentice seamen; actual and necessary expenses in lieu of mileage to officers on duty with traveling recruiting parties, one hundred and twenty-one thousand three hundred and forty dollars.

You are asking for the same as last year?

Admiral CONVERSE. The same as last year.

The CHAIRMAN. I want to ask you about that proviso that was inserted by the House—

That no part of this appropriation shall be expended in recruiting seamen, ordinary seamen, or apprentice seamen unless a certificate of birth or written evidence, other than his own statement, satisfactory to the recruiting officer, showing the applicant to be of age required by naval regulations shall be presented with the application for enlistment.

How has that worked since it was passed?

Admiral CONVERSE. The estimate, as near as we could calculate it, for the first month after it went into effect was a loss of somewhere near 30 per cent. Since then we have been keeping a regular list of those who failed to present evidence of age and were rejected. For the months of July and August at the station at Boston and the various substations there were 1,752 candidates presented themselves, and of that number 200 passed. There were 966 who failed to present evidence of age and were rejected at Boston and substations during the months of July and August.

In September there were 340 who failed to produce such evidence, in October there were 353, and in November 240. That is the way it works at every station that we have. We are keeping the record accurately to see how many are unable to produce this evidence. This deterrent to enlistment has, however, been somewhat mitigated by the decision of the Secretary of the Navy, based upon the opinion of the Judge-Advocate-General as issued in a circular letter which closed as follows:

In this view of the matter the attention of recruiting officers should be called to the fact that the purpose of the provision is distinctly to prevent enlistments

under age; that such written evidence must in every case be required as will show to the satisfaction of the recruiting officer that the applicant is of lawful age, but that in cases where it is obvious to the recruiting officer that the applicant is of lawful age, and where the examining medical officer so certifies in writing, the applicant may be enlisted. The Department considers that such official statement, over the signature of the examining medical officer, should be accepted as meeting the requirements of the act where, for any reason, as is frequently the case, certificate of birth can not be produced.

It is noted that the act expressly provides that the evidence contemplated is to be written; is to be in addition to the statement of the applicant, and is to be satisfactory to the recruiting officer. The last clause of this provision vests a degree of discretion in the recruiting officer in dealing with this matter, and it was doubtless the purpose of the Congress to effect, through a wise exercise of such discretion, the object of the clause without causing unreasonable embarrassment to the service.

Most recruiting officers, however, are very apt to err on the safe side, and are unwilling to accept any man unless they can get very good testimony in regard to his age.

The CHAIRMAN. Then you do not recommend that provision this year?

Admiral CONVERSE. I recommend that that provision in regard to certificates of birth be stricken out. You will find a statement in regard to it in my report, on page 29.

The CHAIRMAN. How is it in this regard in the Army?

Admiral CONVERSE. They enlist men between the ages of 18 and 35 years on first enlistment.

The CHAIRMAN. Have they any provision of this kind?

Admiral CONVERSE. I do not know.

The CHAIRMAN. Will you kindly look it up and see whether they have any such provisions?

Admiral CONVERSE. Yes, sir; if you wish.

The CHAIRMAN. The next is, "Contingent: Advertising, telegraphing on public business," and so forth.

Mr. LOUDENSLAGER. Have we gotten through with this recruiting? I thought you were going to ask a question or two in regard to that, and I would like to ask one or two.

The CHAIRMAN. Very well.

Mr. LOUDENSLAGER. I would like to ask a question or two of the Admiral. He spoke some time ago about the influence that operated against the enlistment of men in the service, and said that he thought that the increase in the enlistments for the coming year would be considerable. Do you think that this influence against enlistments will be eliminated?

Admiral CONVERSE. We may not continue to have, possibly, as favorable crops as we have had the last two or three years, or the demand for people to enter the railroad service may not be as great; the railroads must be getting very nearly all the men they require now. Just at present it is hard to get men for anything, even at the navy-yards. In one of the Omaha papers, for instance, there appeared not long ago right alongside of our advertisement which offered from \$20 to \$70 a month for men, five or six others offering from \$70 upward for men on railroads, and calling attention to the fact, as a further inducement, that men starting in as brakemen and firemen could work up to conductors and other higher positions. I do not suppose that that can continue forever.

Mr. LOUDENSLAGER. Is it not said in a general report of the industrial system of the country that most of these establishments have already all that they can use?

Admiral CONVERSE. Industrial establishments?

Mr. LOUDENSLAGER. Yes.

Admiral CONVERSE. Yes, sir.

Mr. LOUDENSLAGER. Does not the report say that they are completely congested?

Admiral CONVERSE. I have not gone into that sufficiently to say.

Mr. LOUDENSLAGER. You can not get Congress to handle that.

Admiral CONVERSE. I am speaking of our men and the influences that cause men to desert. Men sometimes go home. We give them ten days' leave and travel time, and they are offered \$2.50 a day to help harvest the grain; but that only lasts four or five weeks—whatever it may be—and by that time they are deserters.

Mr. LOUDENSLAGER. Are there any additional efforts to be put forth by you in this matter?

Admiral CONVERSE. Yes; we propose to increase the number of recruiting stations throughout the country as fast as officers are available for the purpose. That is what we are doing now. We have a small vessel, a tender to the training station at Newport, which is used in summer for training apprentices. We shall not need it there this winter, and we have started her down the coast to go up the Mississippi River.

Mr. LOUDENSLAGER. Are there any other ways?

Admiral CONVERSE. Yes; by increasing the number of stations, and, as I said before, the inducements to enter and remain in the service.

Mr. LOUDENSLAGER. That is all?

Admiral CONVERSE. Yes.

Mr. LOUDENSLAGER. Does that increase the expense at all?

Admiral CONVERSE. Yes, slightly, with every station.

Mr. LOUDENSLAGER. Where does that increased pay come from? What appropriation do you pay that from?

Admiral CONVERSE. From this appropriation.

Mr. LOUDENSLAGER. You have not asked for any increase here.

Admiral CONVERSE. Because we did not expend all that we had last year. We could not get officers to put in the field.

Mr. LOUDENSLAGER. How much balance have you on that?

Admiral CONVERSE. The balance is \$7,008.

The CHAIRMAN. You say you enlisted how many men last year?

Admiral CONVERSE. Thirteen thousand four hundred and eighteen, all told.

Mr. LOUDENSLAGER. It would net about 5,000 men, would it not?

Admiral CONVERSE. It would net about 5,000 above the number of discharges, desertions, and deaths. Thirteen thousand four hundred and eighteen men were enlisted last year.

The CHAIRMAN. But from the present quota you are to-day short about 3,500?

Admiral CONVERSE. Four thousand five hundred, somewhere about that. The figures change every week.

The CHAIRMAN. If your enlistments are not any more this year than last year, how much short of the quota will you be?

Admiral CONVERSE. Probably from 2,000 to 3,000.

The CHAIRMAN. Short of the quota?

Admiral CONVERSE. Of the authorized quota.

The CHAIRMAN. Of the 37,000?

Admiral CONVERSE. Of the 37,000, all told.

Mr. KITCHIN. And if it was a certainty that there would be 3,000 short, this appropriation need not be increased?

Admiral CONVERSE. No, sir; not if it were certain. But it is always desirable to catch fish when you can; I mean by that if the conditions to recruit are favorable it is desirable to do so.

The CHAIRMAN. What do you figure out these men cost?

Admiral CONVERSE. Thirty dollars a month.

The CHAIRMAN. Three hundred and sixty dollars a year?

Admiral CONVERSE. Yes; \$360 a year.

The CHAIRMAN. Here are some new words in the bill: "Purchase of gymnastic apparatus." What is the necessity for that? Where do you use it?

Admiral CONVERSE. When a large number of enlisted men are in the neighborhood of a navy-yard, due to a visit of a number of naval vessels or to the fact that they are attending classes under instruction, the Bureau believes that it would greatly add to their recreation and contentment if it could purchase simple gymnastic apparatus, such as parallel bars, flying rings, pulley weights, and the like.

We are developing athletics among the men in the Navy now, and find it necessary to do so, as we no longer have masts and sails, when the men used to get plenty of exercise by running aloft and working. Therefore, to take the place of that we encourage athletics of every kind and put the men through a regular physical drill twice a day on ship and on shore and encourage them in playing ball, or in anything else that makes for the development of muscle or the training of the body. We have a school for the instruction of firemen that has just been started at Norfolk. We have sent men there after being reenlisted as firemen of the first class who desired to be instructed as machinists, machinists' mates, and oilers.

The CHAIRMAN. The next is—

Gunnery exercises: Prizes, trophies, and badges for excellence in gunnery exercises and target practice; for the establishment and maintenance of shooting galleries, target houses, targets, and ranges; for hiring established ranges, and for transportation of civilian assistants to and from ranges.

Heretofore that has been "men and equipment." What is the necessity for that?

Admiral CONVERSE (reading):

The words "civilian assistants" have been substituted for the word "men" as more clearly defining the scope of that portion of the appropriation. It is occasionally necessary to transport markers and workmen to and from ranges, and provision was accordingly made under the appropriation authorizing such a proceeding. The word "men" is subject to construction as meaning enlisted men of the Navy when it is intended to apply only to civilians.

Mr. KITCHIN. That would strike out the "equipment" altogether, would it not, Admiral? You would substitute "civilian assistants" for "men and equipment."

Admiral CONVERSE. It should be "civilian assistants and equipment."

The CHAIRMAN. The next reads:

For expenses incidental to entering and training navy team and competing in rifle matches; for stationery and printing in connection with gunnery training, one hundred and twenty thousand dollars.

Admiral CONVERSE. I have no recollection of striking out the words "and equipment."

Mr. KITCHIN. So that you desire the words "civilian assistants and equipment?"

Admiral CONVERSE. Yes, sir; I want it to read "civilian assistants and equipment to and from ranges."

Mr. LOUDENSLAGER. You do not want transportation for the men, then?

Admiral CONVERSE. No.

The CHAIRMAN. The estimate as sent here to Congress shows that the word "equipment" was stricken out.

Admiral CONVERSE. I happened to be on other duty, and did not see the revised estimate. It should read, "For transportation of civilian assistants and equipment to and from ranges." That is what we intended.

The CHAIRMAN. What have you to say about what follows:

For expenses incidental to entering and training navy team and competing in rifle matches.

Admiral CONVERSE (reading):

That is added for the reason that there are certain expenses incident to entering navy teams in rifle competition which are necessary and which should clearly come out of the appropriation for gunnery exercises. These expenses are not large, but they must be incurred if the practice of entering teams in rifle competition is to be continued, and it is therefore advisable to embody provision for them in the wording of the appropriation bill. In view of the keen competition in these matches and the fact that the most expert marksmen in the United States must be met, the navy team is assembled about two months before the match and must be kept under training and practice daily until it comes off. This involves the purchase of tents, tent equipage, score books, and other articles.

Mr. KITCHIN. From what fund have these expenses heretofore been paid?

Admiral CONVERSE. They have been paid out of appropriation for "Gunnery exercises."

Mr. KITCHIN. Which is the same fund under discussion now?

Admiral CONVERSE. Yes.

The CHAIRMAN. Has there been any question with the Comptroller about the payment of these things?

Admiral CONVERSE. I do not think so.

Mr. CALLAHAN. This was recommended last year.

The CHAIRMAN. The next is, "For stationery and printing in connection with gunnery training."

Have you not a fund in your Bureau out of which you pay for all printing?

Admiral CONVERSE. Yes; the Department has a printing fund.

The CHAIRMAN. Why could not the printing be done under that?

Admiral CONVERSE. It could be done under that.

The CHAIRMAN. There is a disposition in the House to have one fund for printing and not to have it divided up.

Admiral CONVERSE (reading):

Under the phrase "for stationery and binding" it is proposed to pay for the large quantity of mimeograph supplies used, and also pay for such printing relating to gunnery exercises as may be found necessary, thus relieving the printing fund of the Department from an expense which should properly be defrayed from the appropriation for gunnery exercises.

It is largely confidential matter that we have printed in relation to target practice and gunnery exercises. One point raised was that in case of urgency the printing could be gotten out rapidly by private firms if the Government Printing Office was rushed with work during the busy season. All reports in regard to matters as to gunnery practice on board ships are confidential communications, and should be prepared and sent out promptly.

Mr. LOUDENSLAGER. There are no cases, however, where such confidential matter in other cases leaks at the printing office?

Admiral CONVERSE. No, sir.

Mr. LOUDENSLAGER. To any great degree.

Admiral CONVERSE. Not at all. We found that one confidential document went to the wrong division of the Navy Department, was opened, and had circulated around the Department for some time before it came to the right place.

Mr. LOUDENSLAGER. That was all in the family, though?

Admiral CONVERSE. Yes; it was all in the family, but confidential matters should go direct to the proper place.

The CHAIRMAN. The next is "Outfits on first enlistment: Outfits for all enlisted men and apprentice seamen of the Navy on first enlistment, at sixty dollars each," instead of \$45 each.

Admiral CONVERSE. Yes, sir.

The CHAIRMAN. And there is a change from \$567,000 to \$720,000. Why do you ask for an increase there?

Admiral CONVERSE. The cost of everything for the Navy has jumped up very much from 1897, when it was fixed, to the present time. Overshirts were then issued at \$2.40 apiece. They now cost \$2.75. Undress jumpers were then \$1.36. They are now \$2.10. Blue trousers were then \$2.65. They are now \$4.25. Dress trousers, white, were then \$1.02. They are now \$1.05. A jersey which then cost \$1.38 now costs \$1.50. An overcoat has advanced in price from \$8.17 to \$10.25. So the total cost of the outfit now, including rubber boots, and so forth, is about \$66.95.

The CHAIRMAN. What was it before?

Admiral CONVERSE. Forty-eight dollars and eighty-seven cents.

The CHAIRMAN. Now, do you need all of this money, this \$720,000?

Admiral CONVERSE. Yes, sir.

The CHAIRMAN. Take that appropriation of \$567,000 of last year: did you use all of that, or will you use it all? Will there be an unexpended balance?

Admiral CONVERSE. I believe there will be a balance of about \$10,000 or \$15,000. The returns are not all in yet. We can not get them all in for some time.

Mr. KITCHIN. How do you get these things?

Admiral CONVERSE. From the naval paymaster. The clothing is manufactured at the factory in the New York Navy-Yard.

Mr. KITCHIN. The Navy buys the material and makes the clothing?

Admiral CONVERSE. Yes, sir; and the Paymaster-General of the Navy informed us verbally the other day that the increased cost of the outfit was due particularly to the increased cost of cotton and wool, and the cloth used in manufacturing, and not to the cost of manufacture.

Mr. KITCHIN. Do they buy the raw material by competitive bids?

Admiral CONVERSE. Yes; by competitive bids, and then have it

most severely tested. The great trouble in the Navy is to get colors that are fast. The action of salt water is very apparent on any goods that are not of the very best quality.

The CHAIRMAN. If we should not allow the 3,000 men this year could we not cut this down?

Admiral CONVERSE. You could cut off correspondingly on this.

The CHAIRMAN. How much can we cut off from this in that case?

Admiral CONVERSE. You can cut off about \$180,000.

The CHAIRMAN. It would be about \$60 for each man?

Admiral CONVERSE. Yes, sir; that is what I would estimate it.

The CHAIRMAN. That is \$60,000 for a thousand men?

Admiral CONVERSE. Yes.

Mr. LOUDENSLAGER. Would that be exactly correct? This is on first enlistment, is it not?

Admiral CONVERSE. Yes.

Mr. LOUDENSLAGER. It depends on how many reenlist, does it not?

Admiral CONVERSE. Yes.

Mr. LOUDENSLAGER. No; I mean on how many enlist?

Admiral CONVERSE. Yes; on how many enlist.

Mr. LOUDENSLAGER. You might have 10,000 desertions and 20,000 enlistments.

Admiral CONVERSE. It depends on how many we enlist.

Mr. LOUDENSLAGER. It does not depend on the force we authorize you to have, at all, does it?

Admiral CONVERSE. Yes, in a measure. The amount of money that will be required for outfits is based on expenditures for this purpose during previous years. The amount increases in proportion to the increased enlisted strength of the Navy.

Mr. KITCHIN. This is based on 12,000 enlistments?

Admiral CONVERSE. On 12,000 new enlistments.

Mr. LOUDENSLAGER. You had 3,000 reenlistments this year?

Admiral CONVERSE. Two thousand two hundred and eighteen.

The CHAIRMAN. The next is "Maintenance of naval auxiliaries," instead of "colliers."

Admiral CONVERSE. Yes.

The CHAIRMAN. Why do you make that change from "colliers" to "auxiliaries?"

Admiral CONVERSE. We wish to include with the colliers several vessels like the *Celtic* and the *Glacier*, provision vessels, ammunition ships, and a water ship.

Mr. LOUDENSLAGER. How many auxiliaries have you, altogether, of all kinds?

Admiral CONVERSE. We have 18, exclusive of the *Celtic* and *Glacier*, or 20 counting those two.

Mr. LOUDENSLAGER. How many of those are officered by civilians?

Admiral CONVERSE. Eighteen. Of these, 4 are now out of commission.

Mr. LOUDENSLAGER. Eighteen officered by civilians?

Admiral CONVERSE. Yes; with merchant captains, appointed to take command until discharged.

Mr. LOUDENSLAGER. The other two vessels are officered by men of the Navy?

Admiral CONVERSE. Yes.

Mr. LOUDENSLAGER. Are the other 2 about the same tonnage as the 18?

Admiral CONVERSE. Yes.

Mr. LOUDENSLAGER. What is the difference in cost to the Government for running those vessels, between those officered by the naval officers and those in which there are civil employees?

Admiral CONVERSE. That I can not get at right here.

Mr. LOUDENSLAGER. Will you kindly put that information in your hearing?

Admiral CONVERSE. Yes, sir. We will give you the cost of running the auxiliaries manned by civilians with data we have here now.

Mr. LOUDENSLAGER. Yes; but I want the pay of the officers who are on those vessels and all, so as to know the total difference of the cost of running those vessels as between the vessels run by civil employees and those run by men of the Navy. The civil officers in those auxiliaries have performed their duties well?

Admiral CONVERSE. Yes; very well, with one or two exceptions; and there is another advantage in having civilian officers and crews—when the vessel is laid up we discharge them.

Mr. LOUDENSLAGER. And another thing, it would give you more officers for your battle ships?

Admiral CONVERSE. Yes; by taking away the officers and crews who are now manning two of the auxiliaries. There is another point, when it got toward the end of the last fiscal year we put a number of the colliers out of commission immediately. That was done on account of the restriction which Congress passed forbidding deficiencies being created. We telegraphed to China to put three of the vessels out of commission, and we also telegraphed to Admiral Evans to put two of his vessels out of service on a certain date. He needed their services very much, but we told him he could have the colliers again after the 1st of July. We also laid up a water vessel, the *Arctusa*. We put those vessels out of commission and discharged their officers and crews and reduced expenses in every possible way we could, with the result that we show a little balance. We erred on the safe side. We had to do it. But I think perhaps the service suffered a little.

The CHAIRMAN. These vessels that you want to include in this item are in number three or four, are they not?

Admiral CONVERSE. About four or five.

The CHAIRMAN. What sort of vessels? What do you use them for?

Admiral CONVERSE. Provision ships.

The CHAIRMAN. Entirely?

Admiral CONVERSE. And water ships and an ammunition ship. For example, we have now in the harbor of Habana one of our two supply vessels, the *Celtic*.

The CHAIRMAN. Does that make the increase in this appropriation necessary—the inclusion of those vessels?

Admiral CONVERSE. It would make it necessary; yes, sir.

The CHAIRMAN. Do you reduce any other appropriation by taking these vessels out?

Admiral CONVERSE. No, sir; we get more men, however, for the battle ships. We would transfer the crew of the *Celtic* and the

crew of the *Glacier* and the crews of the ammunition vessels to the battle ships.

The CHAIRMAN. The next provision here is "Naval training station, California." You are asking for an increase of \$1,000?

Admiral CONVERSE. The amount asked for under maintenance is the same that was asked for and appropriated for the present fiscal year, excepting an increase of \$1,000 for "lectures and suitable entertainments for apprentice seamen," as has been appropriated for the training station at Newport for the last three years.

The CHAIRMAN. You ask for \$51,000.

Admiral CONVERSE. Yes. That has been provided for a number of years, and we think it is very desirable to do it in San Francisco.

The CHAIRMAN. Last year you had it, did you?

Admiral CONVERSE. For Newport.

The CHAIRMAN. Now you want it for San Francisco?

Admiral CONVERSE. Yes; for San Francisco.

Mr. KITCHIN. Was there any balance in this item last year—in this \$50,000?

Admiral CONVERSE. On the training station?

Mr. KITCHIN. For California.

Admiral CONVERSE. Practically none. The stations always use up their allotment within a few dollars. The books now show a balance of \$1,426.48. We do not know whether there are any further charges against that appropriation that have not been recorded. There probably will be more. There are nearly always some little charges which come in after the end of the fiscal year.

The CHAIRMAN. At Newport you are asking an increase of \$10,000.

Admiral CONVERSE. Yes.

The CHAIRMAN. Why is that necessary?

Admiral CONVERSE. Because of the increase of the number of men at the station, the new buildings which are now in the process of erection and which will require extra supervision and care, and increases in the amount of coal and water required. Water is a very costly article at Newport.

The CHAIRMAN. You have more men there now, have you?

Admiral CONVERSE. We have not at the present time, but at one time I think we had 1,600 or 1,800 men there. At the present time we have been transferring them to ships going out to sea.

Mr. KITCHIN. Was there any unexpended balance at this station?

Admiral CONVERSE. At Newport?

Mr. KITCHIN. Yes.

Admiral CONVERSE. The balance was \$1,820.02, reported on hand in the Treasury Department at the end of the fiscal year.

The CHAIRMAN. The next item is "Naval training station, Great Lakes." You are asking an increase of \$10,000. Why is that necessary?

Admiral CONVERSE. This increase of \$10,000 in the appropriation for maintenance is chiefly necessary to enable the commandant of the station to take the necessary measures to protect the lake front, which is being washed away. This will require filling and grading, and the employment of additional labor.

The CHAIRMAN. What is this new language, "pay of men on leave?"

Admiral CONVERSE. It has been inserted in the estimates to provide for the payment of salaries of men who are absent from the station on leave. Per diem employees have fifteen days a year.

The CHAIRMAN. Do you put that in at any other place? You do not at the Rhode Island station, do you?

Mr. CALLAHAN. The Naval Academy this year has put in the same provision in its estimates.

The CHAIRMAN. But you do not do it in the naval training station at Rhode Island or in California. Why should you not do it at all the stations? I do not know but it ought to be in at all places, navy-yards and stations. Why should you do it in one place and not in another?

Mr. CALLAHAN. At Newport and the other places there is not so much construction work going on, and much of what has been done has been carried on by outside contractors whose men are not entitled to these leave privileges.

Mr. KITCHIN. It looks like that new language in the section above would include that ravine and grading work, "repairs and improvements to grounds, buildings, and piers." Has there been no grading done there yet?

Admiral CONVERSE. Yes; they are at work there all the time. There was a contract let for grading a short time ago.

The CHAIRMAN. Would not that language above accomplish all that you want, "repairs and improvements to grounds, buildings, and piers?" I should think it would. Has there been any difficulty in the Comptroller's office?

Admiral CONVERSE. No, sir.

Mr. KITCHIN. What is the matter with the lake front there; is it washed away?

Admiral CONVERSE. Yes, sir; it is washing away.

The CHAIRMAN. The next is:

Naval training station, Port Royal, S. C.: Maintenance of naval training station, Port Royal, S. C., namely: Manual labor and material; general care, repairs, and improvements of grounds, buildings, and wharves; wagons, carts, implements, and tools, and repairs to same; gymnastic implements; models and other articles needed in instruction of apprentice seamen; stationery, books, periodicals, and other contingent expenses.

Admiral CONVERSE. We had an epidemic, quite an outbreak of meningitis, at the naval training station at Newport. We had perhaps nine or ten deaths. I speak from memory in regard to the numbers, but I think I am not overstating it. The result was that we had to stop sending recruits to Newport, and we sent them all to Norfolk, having there at one time in the receiving ships and on shore and in tents over 3,000 men. Conditions were so congested that it became almost necessary to stop recruiting entirely at the very season when we were getting the most recruits. The naval station at Port Royal is practically closed. Some very good buildings have been put up there, one for steam engineering, one for supplies and accounts, a storehouse, and yards and docks, I think, have one; and there is also a fairly good dock there. We are making arrangements so that in case of an epidemic of sickness of any kind either at Newport or at the St. Helena training station we can send one of our transports of the *Dixie* type down there, establish headquarters, tie the vessel up at the dock, and use the buildings for quarters for the men. The

reason for going there is that we have nearly everything that is required for the men, and the climate is so much better in the winter that we can keep them outdoors almost all the time.

The CHAIRMAN. Do you propose to establish a permanent naval station down there?

Admiral CONVERSE. No, sir; only to keep it in reserve.

The CHAIRMAN. You remember this question of Port Royal, perhaps before your time, was before Congress here, and we had a navy-yard down there, a small one, and Congress decided to close up Port Royal.

Admiral CONVERSE. Yes; it is practically closed now, we have caretakers there.

The CHAIRMAN. We have been trying to close it for a number of years under that understanding that it be closed, and we were to go to Charleston and build a navy-yard there.

Admiral CONVERSE. Yes.

The CHAIRMAN. But about every year there is some cropping out of Port Royal.

Admiral CONVERSE. The yard, all of the machinery, everything in connection therewith, has been moved from Port Royal to Charleston.

The CHAIRMAN. Yes.

Admiral CONVERSE. There is nothing now but this large tract of land, and nice buildings which are unoccupied, and all we wish to do is to occupy them. The Secretary of the Navy has turned it over to the Bureau of Navigation as a reserve for emergency camps for stop-overs from Newport to Norfolk. I can not imagine that it will ever become a permanent station on account of what you might call its isolation, the difficulty of getting there. When we had an epidemic of diphtheria on one of our large training ships we sent her to Port Royal, and she stayed there two months, putting the men under canvas or in tents, and fumigating and ventilating and disinfecting the ship.

The CHAIRMAN. The next is, "Naval depot, Saint Helena, Virginia."

Admiral CONVERSE. This money would be used principally for providing cooking arrangements and sleeping arrangements, urinals, and things of that kind. It was not the intention to make it into a station, except as an emergency or adjunct station to the others.

The CHAIRMAN. What is this depot of St. Helena, \$25,000? Is that a new proposition entirely?

Admiral CONVERSE. No, sir; St. Helena is a part of the navy-yard at Norfolk.

Mr. KITCHIN. That is an island down in the river?

Admiral CONVERSE. No; it is the mainland, directly across the river. There are the barracks used ordinarily at St. Helena [presenting photographs to the committee]. That shows the temporary nature of these improvements. The men are at present quartered in tents. Those are apprentice seamen that you see in that picture and petty officers. There is not a man there who has been in the service over four months. There is not a commissioned officer there. They are a pretty good set of men, I think.

A part of this \$25,000 is required in this way. A requisition was made on Saturday for boards to make floors for the tents, for \$300

for stoves to put in the tents, and for stovepipe, and we have no contingent fund on which to rely for little things of that kind.

Mr. KITCHIN. Is it the final purpose to let these men stay in tents all the year?

Admiral CONVERSE. No; it is the intention to take them away as fast as the ships are ready to receive them.

Mr. KITCHIN. I mean those who stay there; do they stay in tents?

Admiral CONVERSE. No; it is the intention to transfer them on board ships as soon as the ships are ready, and as soon as some necessary repairs are made to the temporary barracks the remainder will be quartered there.

The CHAIRMAN. Last year we made an appropriation of \$25,000 for repairs of buildings at St. Helena.

Admiral CONVERSE. Yes, sir. We have not completed those repairs now. They included changing the latrines, changing the cooking apparatus, and putting new roofing on the buildings which existed there, making them habitable. They are not habitable to-day, and will not be for two months.

The CHAIRMAN. This new provision means substantially a training station, does it not?

Admiral CONVERSE. That is what it has been used for for twenty years.

The CHAIRMAN. They call it a naval depot.

Admiral CONVERSE. That is the Secretary's name for it and not mine. It has been in use for a number of years, and last winter, in January and February, we had 3,600 men there, somewhere in the neighborhood of 2,000 of whom were under canvas. At that time we were assembling crews for two battle ships, and the rest of them were apprentice seamen.

The CHAIRMAN. For what purpose is this \$25,000?

Admiral CONVERSE. General repairs to buildings. This sum is asked for to assist in maintaining a station where more enlisted men assemble in a given time than at any other station.

At the present time when anything is needed for the health and comfort of the recruits in training at St. Helena a requisition is made upon the different bureaus, and often not approved; occasionally requisition is made upon the Secretary of the Navy for an allotment from the contingent fund, which likewise is often disapproved.

Last year the Secretary gave us \$4,000 to pay for tents which the Army transferred to us for this very use.

With the sum asked for it is intended to pay for the care and repairs of grounds and buildings on St. Helena, gymnastic implements and articles needed in instruction of apprentice seamen, books, periodicals, and other necessary contingent expenses that may arise.

The CHAIRMAN. The next is "Naval War College, Rhode Island." There is a change of language on page 21, where you have, instead of "purchase of books for reference," "for care and preservation of library, including the purchase, binding, and repair of books of reference, and periodicals, \$1,500." What is the matter with the way we had it before? What is the necessity for the change?

Admiral CONVERSE. The present appropriation for purchase of books of reference is \$400, and an increase of \$1,100 over the amount now allowed is asked for.

The phraseology is changed for the reason that it is believed that the above, which follows closely the phraseology of the appropriation for the library of the Naval Academy for the year 1907, better expresses the purposes to which the appropriation should be applied. The words "repair" and "binding" are inserted for the reason that it is believed in many instances the binding of periodicals and re-binding of books can be as well done by "open contract" with local binders as by the Public Printer, and with considerable saving to the Government aside from the freight to and from Washington. The former appropriation, \$400, which has been unchanged for a number of years, has proved to be entirely inadequate to meet the needs of the library, even with the closest kind of restriction on the character of the books purchased, with the result that the library is now far behind the needs of the college. In fact the \$400 hitherto appropriated annually is hardly sufficient to keep the library up to date in works on international law alone. When the limited circulation and consequent high price of the class of books required for the War College library is considered, it is believed that the amount named in this year's estimate is below rather than above the mark.

The CHAIRMAN. What about this librarian at \$1,600 instead of \$1,400 per year? How long has he been there?

Admiral CONVERSE. The recommended increase of \$200 in the compensation of the librarian is believed to be just and equitable. The present librarian has been employed at the college for about one year, and his work so far has been such as to merit the extra compensation. He must serve another year before the increase, if allowed, would go into effect, and as the salaries of trained librarians run, \$1,400 is not a large salary for an assistant librarian, and certainly not for a librarian in charge. In view of the above, and the increased value to the college of the librarian by reason of his two years' experience, the advance recommended does not seem unreasonable, particularly if the high cost of living in that vicinity be taken into consideration.

The CHAIRMAN. The next is—

Salaries, Naval War College, supplemental: One clerk of class two (in lieu of one clerk of class one, now paid out of appropriations "Pay, miscellaneous"). fourteen hundred dollars.

What about that?

Admiral CONVERSE. In a recent letter to the Bureau the president of the Naval War College points out the utter inadequacy of the clerical force now employed at the college and an estimate for two additional copyists has been submitted. With the close of the present conference the clerical force will be reduced to one clerk whose time is now and will be fully occupied with the current work of the president's office, and much of the work of the college will come to a standstill for the want of copyists. The number of officers attached to the college staff is not large enough to allow their diversion to this work, even if it were desirable to so employ them.

The president of the college views with apprehension the condition which confronts him, and earnestly urges a favorable consideration of the request contained in his letter above cited.

With a view to having the present clerk, now paid out of appropriation "Pay, miscellaneous," transferred to the civil establishment an estimate is submitted for one clerk at \$1,400 per annum, to be paid

from the appropriation for the support of the War College in lieu of one clerk at \$1,200 per annum, paid out of "Pay, miscellaneous." The additional salary is strongly recommended by the president of the War College, as all of the work of the War College falls on this employee; that is, attending to correspondence, preparing requisitions, keeping accounts, and so forth, which duties often require his working overtime.

Mr. KITCHIN. I notice there are also provided for two copyists at \$900 per annum.

Admiral CONVERSE. They are necessary in view of the increase in the clerical work at the college.

The CHAIRMAN. The next is "Naval Home, Philadelphia, Pennsylvania." That is a decrease of the total appropriation, but it is paid out of the pension fund, is it?

Admiral CONVERSE. Yes: out of the naval pension fund of \$14,000,000.

The CHAIRMAN. On page 23, for repairs to buildings, boilers, furnaces, and furniture, we have \$6,748. Last year you had \$8,000.

Admiral CONVERSE. Yes.

The CHAIRMAN. For "Support of beneficiaries" you ask less. What makes it less? That is about \$3,000 less.

Admiral CONVERSE. That estimate is based on the number of beneficiaries at the Home.

The CHAIRMAN. That is paid out of the pension fund?

Admiral CONVERSE. Out of interest on the pension fund of \$14,000,000. That fund has been in existence for a long time.

Mr. KITCHIN. The men contribute to this fund, do they not?

Admiral CONVERSE. No, sir. The sum of 20 cents per month is deducted from the pay of each officer, seaman, and marine in the Navy for maintenance of naval hospitals. This does not apply to beneficiaries at the Naval Home. The Naval Home was founded out of what we know as the naval pension fund. Forty years ago, when I first entered the service, they used to read, when they read the Articles of War, that all prize money paid should go to and remain forever for the support of people who had become disabled in the service. Afterwards, under the administration of Mr. Robeson or Mr. Chandler, this money was turned in, and we were only entitled to the interest on it. The fund amounted to about \$14,000,000.

The CHAIRMAN. I see here a provision for laborers and cooks, and so forth. You have separated it. There are a number of increases here.

Admiral CONVERSE. There is an increase in the pay of the stewards, the cooks, and two assistant cooks.

The CHAIRMAN. Are there any increases in the number of employees; any new employees asked for?

Admiral CONVERSE. Yes: a master mechanic at \$3.28 per day and a store laborer at \$480 per annum are asked for, in view of the increased labor at the Home.

The CHAIRMAN. Every year there is some increase in here. What is the present necessity for this? Are you not getting along all right as you are now?

Admiral CONVERSE. The master mechanic is required for the purpose of keeping up minor repairs to the buildings and the adjustment

of things that would naturally fall to pieces. He repairs furniture and performs other duties of that character. As for the increase in the pay of the cooks, and all the other, I take it to be simply that the wages of the people throughout the country in those occupations have been increasing.

The CHAIRMAN. What is this provision for pay of beneficiaries for extra duties performed by them at the Home?

Admiral CONVERSE. The regulations of the Naval Home provide that in consideration of the faithful performance of such duties in and about the Home as may be directed by the governor or commanding officer, each beneficiary shall receive \$2 per month. This was afterwards increased to \$3, and was paid up to March 1, 1906. Upon the question of the establishment of the rate of writer at the Home at a compensation of \$10 per month, the Comptroller of the Treasury rendered a decision, under date of March 22, 1906, to the effect that as the appropriation for the support of the Home provides specifically for 49 employees, other personal services than those authorized by the act are prohibited by section 3679 of the Revised Statutes. This was considered to also cover the cases of beneficiaries who had been receiving a compensation of \$3 per month for extra services performed, and consequently payment of this sum was stopped. To reimburse these beneficiaries for extra services rendered at the Home from March 1, 1906, to June 30, 1906, and also to pay certain workmen for services rendered to the Home during the second half of March, 1906, the present estimate is submitted.

The CHAIRMAN. Can you not pay these men here? Here, for instance, are a mechanic at \$4 per day, a carpenter at \$2.80 a day, a plasterer at \$2.80 a day, and so on.

Admiral CONVERSE. We could pay them up to the time that the Comptroller decided that they could not be paid out of the appropriation for the support of the Home. This caused so much suffering that some people contributed to give these poor old fellows the money that they had been receiving before.

The CHAIRMAN. We want you to state just the particular reason why it is necessary, and whether it is likely to occur again. Your total appropriation for the Home is about the same as last year?

Admiral CONVERSE. There is an increase of \$909.

The CHAIRMAN. That practically covers your Bureau, does it not, Admiral?

Admiral CONVERSE. I think it does, sir.

The CHAIRMAN. Over further, under public works, is all that is left, "Public works under Bureau of Navigation." You are asking for something there at the naval training station, California.

Admiral CONVERSE. Yes.

The CHAIRMAN. It reads:

Repairs to water service and an additional main: For extra service pipe to Oakland shore, and so forth, fifteen thousand dollars; to complete and repair roads, three thousand dollars. Painting of barracks, officers' quarters, three thousand dollars; dispensary building, thirty thousand dollars; in all, fifty-one thousand dollars.

Admiral CONVERSE. On account of the dependence of the station for its water supply upon a single line of 3-inch pipe connecting with the Southern Pacific water service at the end of the Oakland Mole,

it is necessary that an additional line of pipe be installed to the island directly from the aqueduct main on shore.

The CHAIRMAN. You have one pipe now?

Admiral CONVERSE. Yes; the station depends for its water supply on connecting with the Southern Pacific water service. All during the earthquake period it was considered necessary to keep a tug alongside of the training station and to keep the hose, and so forth, ready because of the danger of fire.

For the roads and grounds an estimate of \$3,000 is submitted—to reclaim land, for filling in, to continue road projected around the island, and to finish those already commenced with macadam and the necessary repairs.

The CHAIRMAN. How about this "Painting of barracks, officers' quarters, and buildings?"

Admiral CONVERSE. That is considered necessary work, and for painting the buildings it is estimated that the cost of labor and material will be \$3,000.

The CHAIRMAN. The last item is, "Dispensary building, \$30,000." Is not that a pretty expensive building?

Admiral CONVERSE. The quarters now provided for the care of the sick at the naval training station, San Francisco, Cal., are unsatisfactory as to location and are crude and inadequate in accommodations for the care and treatment of the sick.

The daily average number of sick on the station is twenty. This is more than doubled at times when the station has its full quota of recruits.

It is recommended that as soon as practicable a proper and sanitary structure be erected on the most convenient and suitable site available.

The noxious surroundings of the present sick quarters render aseptic surgery at this station impossible, and any other than this is malpractice. A safe site is therefore imperative, and must be one beyond the dusty regions that immediately environ the barracks.

The CHAIRMAN. How many men have you got there?

Admiral CONVERSE. We have at times 300 and over. It is my recollection that we send them over certain lines when recruited, to either the Pacific or the Atlantic coast, as the transportation cost may be least. My recollection is that the number was between three and four hundred the last time, but it varies greatly and is often large.

The CHAIRMAN. The next is, "Naval training station, Rhode Island: Buildings." What have you to say as to that? What is this "re-building old timber wharf and improving water front, nine thousand three hundred dollars?"

Admiral CONVERSE. The commandant of the naval training station at Newport reports that the present wharf has been in position a great many years. It was poorly built in the first place, and now, through the rotting away of timbers and the eating away of the piles by the teredo, it is in an unsafe condition. Temporary repairs will be attempted, but the wharf can not be put in first-class condition without entire rebuilding. It is extremely necessary to the station, as it is used by the three station tenders in the summer and winter, and affords a berth for the *Constellation* in the winter time.

The CHAIRMAN. They are using it right along?

Admiral CONVERSE. All the time.

The CHAIRMAN. What is this "Refrigerating plant, increase, seven thousand nine hundred and fifty dollars?"

Admiral CONVERSE. The present plant was installed when the station was small; even before the station doubled in size the plant was inadequate. It is now necessary to purchase at great expense large quantities of ice, involving long hauls from the city. The saving in cost of ice and certainty of supply and immediate service are an ample warrant for the increase in the plant. The present cold-storage rooms, instead of being supplied with ice, should be cooled with brine pipes, as only one-half the power required to manufacture ice is necessary. Also a large saving in space in the cold-storage boxes results, and the labor and expense of handling large quantities of ice is eliminated; the mere turning of a valve will supply the cold. It is to be noted that ice made for drinking purposes by the station plant will be pure, which can not be said of the ice purchased in the local market.

The CHAIRMAN. The next is "Artesian and fresh water system (to extend), three thousand five hundred dollars." What about that?

Admiral CONVERSE. New buildings about to be erected will require an extension of the artesian well and fresh-water systems. Many of the present fresh-water pipes are badly rusted and should be relaid to save waste.

Mr. KITCHIN. Do you know how deep they go there after water?

Admiral CONVERSE. I do not remember; no. I know that on a neighboring island, Goat Island, about three-quarters of a mile from there, we never succeeded in getting any good water at all. As a rule we use the water from the city supply. It is brought over in pipes, and we have to pay an exorbitant price for it. One man has had a monopoly of all the water works around that section of New England for a long time, and the water comes some distance.

The CHAIRMAN. The next is "Grading and walks at barracks C, six thousand two hundred dollars."

Admiral CONVERSE. This building has been occupied about one year. No walks have been provided in the vicinity. During wet weather the roads are extremely muddy and dirty. Cinders are tracked through the building and have helped to ruin the floors. It is essential that approaches to this building should be installed as promptly as possible.

The CHAIRMAN. The next is "General storehouse, forty-nine thousand five hundred and forty dollars."

Admiral CONVERSE. The present storehouse and pay office is so located that the apprentice seamen are required to take a round trip of about 1 mile in order to draw stores or pay.

The CHAIRMAN. That is good exercise, is it not?

Admiral CONVERSE. Except in bad weather.

Mr. KITCHIN. Is the building itself all right?

Admiral CONVERSE. It is in the wrong place. When this station was put up these people were confined to the ships right at the edge of the docks; but finally, when they built the barracks, they were carried north over the brow of the hill three quarters of a mile. Marching these men backward and forward to get their stores and their money and to get their clothing when they draw it at the end of the month is rather bad on their health, as they have to be kept standing outside waiting their turn. Newport is not a good place

for any outdoor work during a great part of the year. I mean that they have high winds there, and the place occupied by the Government is exposed.

The CHAIRMAN. The next is "Dredging channel and basin, ten thousand dollars."

Admiral CONVERSE. This has been twice requested. The entrance channel is narrow and irregular, making it very difficult to maneuver the station tenders and other boats. A number of accidents and collisions have occurred. Fortunately these have not been very serious so far. Furthermore, there is not now sufficient space for anchoring the boats possessed by the station. It is proposed, if the appropriation is granted, to widen the channel and deepen it to about 18 feet, and to dredge a basin varying from 8 feet to 18 feet in depth at the entrance. Ten thousand dollars is not sufficient to do the work which is considered necessary, but the request has not been any larger in the hope that the appropriation may be more readily granted and the essential parts of the work done.

The CHAIRMAN. The next is, "Steam distributing lines, six thousand three hundred dollars."

Admiral CONVERSE. The War College buildings and building No. 11 each have independent heating plants, requiring attendance throughout the winter, together with repairs and similar expenses. Furthermore, at the War College plant it is necessary to use anthracite coal at a cost of about \$5.25 per ton, because of cleanliness. These buildings are within reach of the central power house and should by all means be heated from there. The extra attendance during the winter will be avoided and a saving in the War College coal bill of about \$2.50 per ton, or about \$625 annually, will result. The total annual of saving will be well in excess of 10 per cent of the amount of the appropriation.

The CHAIRMAN. The next is, "New receiving and disinfecting building, thirty thousand dollars."

Admiral CONVERSE. An estimate of \$30,000 is submitted.

The present building is built of wood and is of a temporary character. It is of very insanitary construction, as has been reported by the Bureau of Medicine and Surgery. With the doubling in the number of the apprentices at the station it is not adequate. Furthermore, the new group of detention buildings is about to be erected on a different part of the island and the new building is necessary to complete the equipment. Not until this is done can the station be said to possess proper facilities for receiving and handling the new recruits in a safe and sanitary manner.

The CHAIRMAN. Have they got one now that they use?

Admiral CONVERSE. Yes; they have one there that they use, but it is not near the new detention buildings. One was destroyed by fire. The recruits are put in these buildings and thoroughly disinfected. Their clothes are disinfected, everything is taken away from them, and they are barbered and shaved and given new suits of clothes before they are sent anywhere else. I have always believed that the meningitis last year was brought in with the recruits from the cities from which they came.

The CHAIRMAN. Which do you think is the most important, the disinfecting building or that storehouse?

Admiral CONVERSE. One is to prevent disease in the outstart, and the other is to keep the men free of pneumonia after we have them in the service for a while. It is hard to tell which is most important.

The CHAIRMAN. The next is, "Increase of heating and lighting plant, five thousand three hundred dollars."

Admiral CONVERSE. Additional equipment is needed to put the plant on an economical basis. The old boiler feed pumps are badly worn. A feed-water heater, with storage capacity for returns from heating system, together with hot-water pump, should be installed, in order to save the heat in the exhaust steam and hot-water returns, as well as the water itself. The roof of the present engine room is too low and the ventilation is insufficient. As a result the heat is almost unbearable. Minor improvements in addition to those outlined are required. This estimate is regarded as one of the most important.

The CHAIRMAN. The next is, "Sanitary, heating, and ventilating system in barracks B, nine thousand eight hundred and forty dollars."

Admiral CONVERSE. The only satisfactory and safe heating and ventilating system from the point of view of health is one whereby heated fresh air is continually forced into the sleeping and living rooms. With a continuous supply of pure air, warmed as needed, it has been proven that sickness is very much reduced. Such systems are required by the laws of many of the States for certain classes of buildings. The present heating system in barracks B, while an attempt has been made to supply fresh air, is far from satisfactory. The fresh air, which is taken in from the openings in the walls, passes through galvanized iron boxes. These upon examination have been found to be filled with dirt and dust of all descriptions. There is no means of cleaning the boxes. The foul air is supposed to be removed through galvanized-iron ducts, current being actuated by a coil of pipe in the upper part of the stack.

This system, while an improvement over the method whereby absolutely no provisions are made for air supply, is far from sufficient and satisfactory. There is no means of controlling the amount of air supply; the action is not positive, and depends very largely upon the direction of the wind. Opening of windows and doors interferes with the operation. The expenditure of the small sum named is eminently justified, when it is considered that the health, and in some cases the lives, of many apprentice seamen are dependent thereon. This appropriation is specially urged in the line of improving the sanitary conditions at the station.

The CHAIRMAN. The next is, "Repairs and alterations to building numbered ten, seven thousand nine hundred dollars."

Admiral CONVERSE. This building is used as an administrative building and for quarters of the commandant of the station. The building is very old. The time of its erection is not known. A great many of the timbers in the floors and roof are in very bad condition. The heating system is in need of repairs. The electric wiring should be overhauled and ceilings reconstructed where the plaster is now loose. The entire basement story is in very bad condition and should be completely overhauled.

The CHAIRMAN. The next is, "Completion and repairs, three double sets of officers' quarters, four thousand two hundred and thirty-two dollars."

Admiral CONVERSE. The cellars of these cottages have been very damp. In several cases pools of water collect on the floors and the dampness and moisture arise through the houses. This condition is well known to be prejudicial to health. At various points the houses were not completed because the original appropriation was too small. The cellars are unfinished and there is at present no door to separate the cellars from the upper part of the houses. Minor items to complete the houses are also necessary.

The CHAIRMAN. The next is, "Furnishing assembly, lecture, and reading room, and improving basement story, two thousand nine hundred and ninety dollars."

Admiral CONVERSE. The appropriation for the building was barely sufficient to complete the rough walls and floor. A considerable rise in the cost of building materials and labor has taken place. The sum named is necessary to provide seats, window shades, plumbing, and other necessities. The comfortable seating capacity of the lecture hall is 754 persons. This may be increased to about 800. It is recommended that a gallery be constructed at the rear of the building, to increase the seating capacity by about 250. If this be done, about \$1,800 should be added to the above estimate.

The CHAIRMAN. This makes in all \$168,052 for these different items at Newport. The next is the "Naval training station, Great Lakes: Buildings." The first item is—

To complete buildings in accordance with the provisions of the act of Congress approved June twenty-ninth, nineteen hundred and six, to cost one million two hundred and fifty thousand dollars, seven hundred and fifty thousand dollars."

Do you need all of that this year?

Admiral CONVERSE. I believe Captain Ross thinks it is necessary. I would rather that he should appear here and speak for himself. All the information that I have is gathered from his statements to me and from blueprints and the present existing conditions. He is in the city, I think, or if not he can be gotten here very soon.

The CHAIRMAN. Very well. This concludes your Bureau.

Admiral CONVERSE. Yes, sir.

The CHAIRMAN. I wanted to ask you a question. I saw in your report that you spoke about the marines, and I would like to ask you about what you said.

Admiral CONVERSE. That is a question which I have considered. I would like to have that looked on not as a recommendation which I have made, but as a question which I have considered, as to the advisability of taking them out of ships. I gave my reasons for it. I see that it has started some controversy.

The CHAIRMAN. Yes.

Admiral CONVERSE. The character of the men in the Navy has changed entirely within the last twenty years. It has changed more rapidly in the last ten years than at any other period of the Navy. Formerly we recruited the Navy entirely from seacoast cities, and took into it people of all nationalities. Anybody who was a seafaring man would be taken in. They had no certificates of birth; they had no certificates of character; practically they had nothing. If they wanted to ship in the Navy, we took them. The result was they were rather an unruly set, and it was necessary to have over them, in

days gone by, a set of men who could enforce discipline, and for that purpose, I take it, the marines were sent on board ship.

At the present time we are recruiting our Navy entirely from American citizens. We are recruiting it from the interior of the country and teaching the men the duties of men-of-war's men on board ship. We call them sailors, but really they are battle ship's men. They are drawn from exactly the same class as are the marines and as are the soldiers. There is no reason, to my mind, why the enlisted force of the Navy should require a different class of men over them to keep them in order than the soldiers require a specially uniformed and paid class of men to keep them in order. They are differently paid, differently uniformed, and while they do some of the ship's duty they do not do all that blue jackets do. They are under different officers on board ship, officers not available for general duties. Many of the officers in the service have for years been of the opinion that the efficiency of the service would be increased if these men were withdrawn and an equal number of blue jackets put into their places. This matter has been forced upon me from my position as Chief of the Bureau during the last two and a half years, and I believe that the opinion of the majority of officers in command of our large ships is in favor of withdrawing the marines from the ships, utilizing them for guards at navy-yards and naval stations, and for expeditionary forces to be embarked in different ships of a transport nature and type. Within the past year the marines have been entirely withdrawn from our battle ships twice for short periods of time. Once they were placed in camp at Guantanamo for nine days.

The CHAIRMAN. How many marines are there to-day on the ships, approximately?

Admiral CONVERSE. About 8 to 10 per cent of the complement. Our battle ships carry the ordinary guards, which for a battle ship is 60 marines, and on the flagship it is increased to 72. In this connection I would like to read this paper:

U. S. FLAGSHIP MAINE,

Target Grounds, off Cape Cruz, Cuba, April 2, 1906.

SIR: 1. I respectfully submit for the information and consideration of the Department letters from each of the commanding officers of the twelve ships of the first squadron and Fourth Division relating to the manner and efficiency with which the police, orderly, and other duties usually performed by marines were performed by enlisted men of the Navy during the absence of the marines for a period of nine days while at Guantanamo Bay, Cuba.

2. During the stay of the fleet at Guantanamo Bay I directed that all the marines of the fleet, including the marine battalion of the U. S. S. *Yankee*, who was then present, encamp on shore for shore drills and the experience of camp life from the morning of March 8 to the morning of March 17.

3. Commanding officers were directed to detail enlisted men of the seaman branch to take the place of the marines while they were on shore and were directed to make report of the manner in which these men of the seaman branch performed their duties. A copy of my letter to commanding officers relating to this report is inclosed.

4. I beg to set forth the marine complement of the 12 vessels and in the opposite column the number of men in the seaman branch who performed their duties while they were on shore.

	Marine comple- ment.	Seaman branch detailed.
U. S. flagship Maine.....	73	43
U. S. S. Missouri.....	69	20
U. S. S. Kentucky.....	60	30
U. S. S. Kearsarge.....	60	30
U. S. flagship Alabama.....	66	43
U. S. S. Illinois.....	60	21
U. S. S. Iowa.....	60	26
U. S. S. Indiana.....	60	21
U. S. flagship West Virginia.....	60	22
U. S. S. Colorado.....	60	11
U. S. S. Pennsylvania.....	60	13
U. S. S. Maryland.....	60	20
Total.....	748	300
Average.....	62	25

5. It will be seen from the above table that the number of enlisted men to perform the duties of sixty or more marines varied from 11 to 43, the two high numbers of 43 being flagships.

6. It will appear from the accompanying reports of commanding officers that the men generally were not specially selected for this duty and that of the 300 men performing the duties for nine days there was but one case of dereliction; also on some of the ships the men were not excused from doing much of their general ship's work.

7. I would add also that no extra officers were required to replace the absent marine officers and that no officer was burdened with additional duties during their absence, unless it were the executive officer, who had, of course, to arrange and supervise the necessary details.

8. The way in which these men of the seaman branch took hold of and performed duties to which they were unused and unfamiliar appears to me to be highly commendable, and I accordingly bring it to the Department's notice.

9. I would add that at Guantanamo Bay, Cuba, there was a considerable number of instances of "drunkenness on board" or among sailing parties and that there have been some attempts to smuggle liquor on board, so that it was not a case where the police duties of the ship were nominal.

Very respectfully,

R. D. EVANS,
Rear-Admiral, U. S. Navy.
Commander in Chief United States Atlantic Fleet.

The SECRETARY OF THE NAVY,
Navy Department, Washington, D. C.

The CHAIRMAN. What other navies have marines on board ship?

Admiral CONVERSE. England only.

The CHAIRMAN. Do they have marines in any other navies?

Admiral CONVERSE. I think not. That is my recollection, and I think they are gradually assimilating them in the English navy, as I recollect, with their blue jackets.

The CHAIRMAN. They are making them all into blue jackets?

Admiral CONVERSE. They are doing away with the distinction between the two on the ship. They used to have marine artillerymen and marine infantrymen. I think they are wiping out the distinctions and having the marines do the duty of blue jackets.

The CHAIRMAN. Are there any other matters in your report that you would like to speak of?

Admiral CONVERSE. No, sir; I do not think of any other. It is not generally known or realized that when the vessels were sent to Cuba this fall the two vessels that arrived in Cuba first had no marines on board, and the landing parties which were sent ashore in Habana and Cienfuegos were composed of blue jackets entirely. They handled the situation until the marines arrived later and did valuable

service in guarding sugar estates and other American property. The ship at Cienfuegos landed about 100 of its crew, and their duties on shore were performed splendidly. The commanding officer of that ship does not wish to have any marines sent to his ship. The battle ship *Massachusetts* for a year or a year and a half while she was in the battle-ship squadron had no marines on board. The blue jackets do not like to feel that they are distrusted and that marines are kept over them.

The CHAIRMAN. Is not the whole question as to whether you shall have marines on board all the time a matter of regulation in the Department?

Admiral CONVERSE. Yes, sir.

The CHAIRMAN. There is no law provided concerning it?

Admiral CONVERSE. No, sir; except general law—the Revised Statutes, sections 1611, 1616, 1617, 1618, 1619, 1620, and 1621. The first of the revised statutes mentioned provides that the President of the United States may divide the marines up into companies and detachments, and so forth, as he may see fit.

Section 1616 provides that he may detach marines for duty on board ship whenever in his judgment it is desirable to do so. He may also detach and appoint officers of the Marine Corps for service on board ship.

One important section (1621) provides that the Marine Corps shall be subject to the laws and regulations of the Navy, except when the marines are detached for service with the Army by order of the President. Then they come under army regulations.

Another proviso is that the President may detail marines, whenever he sees proper, to perform the duty of landmen on board ship.

Another provides that he can garrison any of the seacoast defenses or ports with marines whenever he wishes and assign them to any duty on shore.

The CHAIRMAN. But still it is within the regulation of the Department?

Admiral CONVERSE. Quite within the regulation of the Department. All of the marines were withdrawn and sent to Cuba. During that entire time the battle-ship squadron was without marines again for something like three weeks. I should imagine; and Admiral Evans again reports, under date of November 18, 1906, in regard to them:

These men acted as orderlies, sentries, corporals of the guard, etc., and without an exception performed their duty to the satisfaction of the commanding officers of the ships. The men were orderly, intelligent, and zealous, as a rule.

2. The marine guards of the ships of the first squadron, exclusive of the flag-ship, number at least 60 men. Their duty was performed by the bluejackets, averaging about 36 per battle ship, and varying from 31 to 42. I have always been of the opinion that a ship's company of bluejackets alone would be of great advantage to the ship, and my opinion is confirmed after seeing the manner in which the duty has been performed by these men in the absence of the marine guards.

3. The present guards are larger than are needed on board ship to perform the ship's duty, and I have to recommend that they be reduced to one commissioned officer and 36 noncommissioned officers and privates, and that the difference between this number and the present guards be made up by an increase of the complement of bluejackets.

I have here letters from all the commanding officers of the battle ships. While they do not any of them state explicitly that they would like to have the marines withdrawn, they all state that the

duty during the absence of the marines was performed equally well, if not better, by the bluejackets.

(At 1 o'clock p. m., the committee adjourned until to-morrow, Tuesday, December 11, 1906, at 10.30 o'clock a. m.)

NAVY DEPARTMENT,
Washington, December 14, 1906.

SIR: The Department has the honor to transmit below, for the information of the Committee on Naval Affairs, certain data which was requested by the chairman and members upon the occasion of the appearance of the Chief of the Bureau of Navigation before the committee on the 10th instant, in connection with the estimates of appropriations for the fiscal year ending June 30, 1908.

MEN UNDER TRAINING AT TRAINING STATIONS.

The following table is submitted, from which it is believed an idea may be formed of the constantly changing number of men at the three training stations:

	June, 1905.	Septem- ber, 1905.	Decem- ber, 1905.	March, 1906.	June, 1906.	Septem- ber, 1906.
Newport, R. I.	1,191	1,434	989	1,364	1,519	1,169
St. Helena, Va.	734	682	854	766	609	388
San Francisco	59	179	284	529	272	184

COMPARATIVE COST OF MAINTAINING NAVAL AUXILIARIES WITH NAVAL AND WITH
MERCHANT CREWS.

Referring to the inquiry made as to the cost of maintaining in commission an auxiliary vessel with a naval crew as compared with a merchant complement, the Department has the honor to state that the sum required to officer and man an auxiliary vessel with a naval crew greatly exceeds the sum which would be required to pay and subsist a merchant crew. The yearly cost of pay and subsistence of a naval crew on the U. S. S. *Carsar*, for example, would be \$41,246, while with a merchant crew the sum required for the same purpose would be but \$29,607. The pay and subsistence of officers and men of the supply ship *Celtic*, which is manned by a naval crew, amounts yearly to \$67,169, while that of officers and men of the collier *Ajax*, a vessel of about the same size as the *Celtic*, carrying a merchant complement, would amount to only \$31,467.

The cost of manning the U. S. S. *Glacier* with a naval crew for one year amounts to \$75,539, while with a merchant crew it could be done for \$31,467. The above figures are approximate and are based on full complements of the vessels mentioned.

UNITED STATES NAVAL HOME.

As the committee was advised at the hearing above referred to, the regulations of the Naval Home provide that in consideration of the faithful performance of such duties in and about the Home as may be directed by the governor or commanding officer, each beneficiary shall receive \$2 per month. This was afterwards increased to \$3, and was paid up to March 1, 1906. Upon the question of the establishment of the rate of writer at the Home, at a compensation of \$10 per month, the Comptroller of the Treasury rendered a decision, under date of March 22, 1906, to the effect that as the appropriation for the support of the Home provides specifically for 49 employees, other personal services than those authorized by the act are prohibited by section 3679 of the Revised Statutes. This was considered to also cover the cases of beneficiaries who had been receiving a compensation of \$3 per month for extra services performed, and consequently payment of this sum was stopped. No compensation has been received by the beneficiaries for services rendered from March 1, 1906, to June

30, 1906, and payment of workmen employed by the governor during the latter part of March has also been withheld, in conformity with the decision of the Comptroller above referred to.

An estimate for \$1,205.66 has accordingly been submitted to pay the beneficiaries for extra duties performed by them during the above-mentioned period, and an estimate of \$56 has been submitted for the purpose of paying a mechanic and carpenter employed by the governor of the Home during the latter part of March.

The naval appropriation act approved June 29, 1906, authorizes the Secretary of the Navy to employ, on the recommendation of the governor, beneficiaries in the Naval Home, whose compensation shall be fixed by the Secretary and paid from the appropriation for the support of the Home.

The committee is informed that the expense of maintaining the Home is paid out of the interest on the "naval pension fund," which accrues from total Government receipts from sales of prizes and from suits for depredations of timber belonging to the United States. This fund amounts to \$12,000,000, and the annual interest, at 3 per cent, is turned over to the Secretary of the Navy. The amount of this interest, viz, about \$420,000, is deposited with the Secretary of the Interior toward the payment of naval pensions, with the exception of the sum which is necessary for the support of the Home. Any balances remaining from the appropriation for the support of the Home, instead of being turned back into the surplus fund of the Treasury, are credited to the interest on the naval pension fund.

CERTIFICATE OF AGE UPON APPLICATION FOR ENLISTMENT.

The question was asked the Chief of the Bureau of Navigation whether an applicant presenting himself at an army recruiting station would be required to submit the same evidence as to his age as the law directs shall be done in the Navy. The Department considers, however, that this information might be more properly furnished by the War Department, and suggests that the committee address such inquiry as it may desire to make upon this subject to the Secretary of War.

Very Respectfully,

CHARLES J. BONAPARTE,
Secretary.

The CHAIRMAN COMMITTEE ON NAVAL AFFAIRS,
House of Representatives, Washington, D. C.

[No. 2.]

BUREAU OF ORDNANCE—STATEMENT OF REAR-ADMIRAL N. E. MASON, CHIEF OF THE BUREAU OF ORDNANCE, NAVY DEPARTMENT.

COMMITTEE ON NAVAL AFFAIRS,
HOUSE OF REPRESENTATIVES,
Wednesday, December 12, 1906.

The committee met at 10.30 o'clock a. m., Hon. George E. Foss (chairman) in the chair.

The CHAIRMAN. We begin on page 26 of the bill:

Bureau of Ordnance. Ordnance and stores: For procuring, producing, preserving, and handling ordnance material; for the armament of ships; for fuel, material, and labor to be used in the general work of the Ordnance Department, etc.

Last year the appropriation was \$3,500,000, and this year you ask for \$4,146,457. How do you make that out?

Admiral MASON. The following is a detailed statement concerning this estimate:

Detailed explanation of the necessity for the appropriation "Ordnance and ordnance stores" for the fiscal year 1907-8, amounting to \$4,146,457.

Ordnance and ordnance stores, \$4,146,457, itemized as follows:

First general clause—

(a) For procuring, producing, preserving and handling ordnance material. (NOTE: This item is embraced in (b) and (c), being simply part of the definition of the use of the appropriation.	
(b) For the armament of ships.....	\$142, 580
(c) For fuel, material, and labor to be used in the general work of the Ordnance Department, exclusive of watchmen and maintenance of the naval proving ground and powder factory.....	2, 251, 513
(d) For watchmen at magazines, powder factories, and powder depots	34, 500
(e) For furniture in ordnance buildings at navy-yards and stations..	1, 125
(f) For maintenance of proving ground and powder factory.....	65, 681
(g) For target practice	1, 651, 058
	<hr/> 4, 146, 457

This appropriation has been itemized, as directed by the Department in its circular letter of September 7, 1906.

It is pointed out that the estimated amount set opposite each item as a possible expenditure is only approximate and liable to be increased or diminished by unforeseen contingencies, and also that the aggregate amount appropriated for several purposes may be, in fact, differently distributed among them. For instance, the expressions "for procuring, producing, preserving, and handling ordnance material," "for the armament of ships," "for fuel, material, and labor to be used in the general work of the Ordnance Department," "for maintenance of the proving ground and powder factory," and "for target practice" have practically the same meaning, labor and material being used for all in an increased or diminished amount as occasion may demand.

The appropriations under this head for the past six years have been as follows: .

1901-2 -----	\$500, 000
Deficiency -----	300, 000
Total -----	800, 000
1902-3 -----	800, 000
Deficiency -----	500, 000
Total -----	1, 300, 000
1903-4 -----	1, 500, 000
1904-5 -----	2, 000, 000
Deficiency -----	500, 000
Total -----	2, 500, 000
1905-6 -----	3, 000, 000
1906-7 -----	3, 500, 000

The Bureau has increased its estimates under this head by \$646,457, making a total of \$4,146,457, as above stated.

The CHAIRMAN. Why is that?

Admiral MASON. The Bureau has done this under the assumption that there will be in full or partial commission during the fiscal year 1908 24 battle ships, 12 first-class cruisers, 66 second and third rate vessels, 60 torpedo vessels, and 15 auxiliaries, making a total of 177 vessels.

This represents an increase of 38 vessels over the present fiscal year, 5 of which are battle ships, 2 first-class cruisers, 9 second and third rate vessels, and 22 torpedo vessels. Four hundred and fifty-one thousand and fifty-three dollars of this estimate is for an increase of target-practice appropriation over last year, as it is absolutely necessary to provide for the additional vessels above mentioned. The increase over that previously asked is due to the increase in the number and size of vessels which will be engaged in target practice.

It was put in this working appropriation—about \$1,400,000.

The CHAIRMAN. This will give you about a million and a half for target practice?

Admiral MASON. Yes, sir. We are going to have a good many more battle ships, and their target practice would cost more. "Ordnance and ordnance stores" is a general appropriation for carrying on all the work of the Ordnance Department of any kind, except that for vessels under construction or for purposes otherwise especially appropriated for. It includes work at navy-yards, magazines, and the naval proving ground; all material and labor necessary for the care and preservation of ordnance stores on shore and afloat; furniture in the ordnance buildings at navy-yards, and in magazines and stations; labor, watchmen, fuel, tools, and a great variety of miscellaneous items not otherwise provided for.

The expenses under this working appropriation of the Bureau necessarily increase with every ship added to the Navy, and the amount asked for is believed to be the minimum consistent with efficiency and safety.

The CHAIRMAN. Will you have an unexpended balance in this this year, do you think?

Admiral MASON. I am sure not, without our system of accounts allows some money turned into the Treasury that we can not help. On our last appropriation, although we worked as carefully as we

could and supposed that we had expended the whole appropriation, there was, or will be, a sum of about \$175,000, probably, turned in which we needed very much for a great many modifications and changes; but it was simply because of the transfer of accounts, because of our not knowing how our accounts stood, not keeping the books ourselves.

Mr. ROBERTS. How does it happen that this money gets turned into the Treasury?

Admiral MASON. Transfers were made. We did not expend it. We held up necessary work which we should have used the money for, simply because we did not think we had it.

Mr. ROBERTS. Not having a set of books in your own department, you could not tell how you stood with regard to the amount available?

Admiral MASON. Yes; and not being informed by the accounting bureau until several months later, we did not spend the money; we did not obligate the money.

Mr. ROBERTS. You did not spend the money that you should have spent and really needed?

Admiral MASON. And at the end of the fiscal year we could not do anything.

Mr. ROBERTS. Had you known how you stood, you could have used that \$175,000?

Admiral MASON. Yes; we could have used it in modifying and modernizing the work.

The situation in regard to expenditures is this: Material, under the cognizance of the Bureau of Ordnance, is bought under several appropriations, "Increase of the Navy, armor and armament," "Reserve guns for auxiliary cruisers," "Reserve guns for ships of the Navy," and out of the annual appropriation "Ordnance and ordnance stores." When material bought under these several appropriations is required for use other than that to which the Accounting Bureau considers strictly chargeable to the appropriation under which the material is bought a transfer of funds is involved, of which the Bureau of Ordnance may have no accurate knowledge until some time after the transaction is closed. These transactions sometimes amount to considerable sums, in excess of \$150,000 for a single month, or even a single transaction, and as a result it has been practically impossible for the Bureau to be sure that its balances near the end of a fiscal year are on the safe side. Formerly this uncertainty was not of such serious importance as it has been since the passage of the deficiency act of March 3, 1905, with its stringent provisions on the subject of deficiencies, inasmuch as prior to the passage of this act the Bureau, while making every effort to keep within its appropriations, could, if a deficiency were unwittingly or necessarily incurred, make to Congress a satisfactory explanation accompanying a deficiency bill. Since the passage of this act this Bureau, with the cooperation of the Accounting Bureau of the Department, has taken several steps looking to prompt and more accurate statements of actual balances, but even with such measures as have been taken or suggested, short of such prohibitive ones as might seriously interrupt necessary work, or even keep from ships in commission imperatively needed material, there is no certainty that the Bureau can authorize obligations to a closer limit of the appropriation "Ordnance and ordnance stores" than \$100,000 without risking an infraction of the

law contained in the act referred to. The appropriation "Ordnance and ordnance stores" is mentioned specifically because it is the one chiefly involved, the other appropriations under which material is purchased not being annual.

The CHAIRMAN. I see the proviso is stricken out of last year.

Admiral MASON. What is that?

The CHAIRMAN. The proviso—

That no part of this appropriation shall be expended for the purchase of shells or projectiles except for shells or projectiles purchased in accordance with the terms and conditions of proposals submitted by the Secretary of the Navy to all of the manufacturers of shells and projectiles, and upon bids received in accordance with the terms and requirements of such proposals. All shells and projectiles shall conform to the standards prescribed by the Secretary of the Navy.

Is there any objection to keeping that in?

Admiral MASON. No more than the original objection that we had to going into competition for armor-piercing shells.

The CHAIRMAN. What has been the effect of it?

Admiral MASON. The effect has been to place the contracts all in the hands of one company.

The CHAIRMAN. To place the contracts all in the hands of one company?

Admiral MASON. Yes; their bid was decidedly lower than anybody else's, and in all probability the bids which are to be opened in four or five days will also be lower.

The CHAIRMAN. So that heretofore you divided up the work, did you—distributed it?

Admiral MASON. Distributed, not divided; because the Department gave the bulk of the work to the firm that they knew could furnish the required articles in compliance with the specifications. In addition, small orders were given to other large firms, who expressly desired to develop this particular kind of ordnance material, and they were given a chance to do so.

The CHAIRMAN. What is going to be the effect of this? Is it going to be to drive the other fellows out of business, so far as the Government bidding is concerned?

Admiral MASON. I am afraid so; without some of the large steel companies, by quite a large expenditure of money, acquire or develop a process of their own, by which they can comply with the Department's high specifications for armor-piercing projectiles. This they have endeavored to do in the past, without much success.

The CHAIRMAN. What is the company that got the contracts for this?

Admiral MASON. The Firth-Sterling Steel Company.

The CHAIRMAN. They have got a monopoly of the business?

Mr. KITCHIN. Where is that located?

Admiral MASON. In Pittsburg, Pa., and they are building quite an extensive establishment across the river here, at Giesboro Point.

The CHAIRMAN. What was the difference between their bid and that of other companies on the work? State generally the percentage.

Admiral MASON. Approximately 40 per cent. The total bids were as follows: Firth-Sterling Steel Company, \$322,500; Bethlehem Steel Company, \$541,850; and the Midvale Steel Company, \$554,900.

I will say that the Firth-Sterling Steel Company in their bids this time bid exactly the same prices as the prices they have been charging us for the past three or four years. They made no change in their prices, although there was competition, and I considered their prices, from what I know of the manufacture, as fair and reasonable.

Mr. ROBERTS. Then that provision of the law last year has not cheapened the cost of the projectiles to the Government.

Admiral MASON. No.

Mr. KITCHIN. It has cheapened, too.

Mr. ROBERTS. No; it has not cheapened it. They were about 40 per cent under their competitors.

Admiral MASON. The idea being that these competitors could not afford to start in, taking a jump in the dark, and bid a low price. They had to put in a price that would cover their plants and their experimental work.

Mr. KITCHIN. But the result of this provision is that upon a great deal of your material you get it 10 or 15 per cent cheaper than you did before?

Mr. ROBERTS. You say that before you had been distributing the contracts for armor-piercing projectiles?

Admiral MASON. Yes; in a manner. In 1903 to induce competition the Bureau gave orders for armor-piercing shell to four of the principal steel companies, with the idea of enabling them to develop their facilities for the manufacture of this class of projectile. The results were not very satisfactory. Since that date until this advertising was made mandatory the Bureau has endeavored to distribute its orders for target and common shell among these companies in such manner as would best tend to keep their projectile plants in an efficient condition. As a result of advertising, however, the Firth-Sterling Steel Company are now manufacturing practically all the shell of large calibers, target as well as armor-piercing, on outstanding Bureau contracts. This is, of course, because they underbid their competitors.

Mr. ROBERTS. So that these competitors of the Firth-Sterling Company did last year put in their bids at practically the same prices at which you had been awarding them small contracts heretofore?

Admiral MASON. No; they were rather higher, probably because in view of their past experience these companies realized the difficulty of complying with the service requirements for this class of shell.

Mr. ROBERTS. They did not get into a competition with the Firth-Sterling people, really?

Admiral MASON. There was a competition, because it was advertised and everybody had a chance to bid.

Mr. ROBERTS. I understand there was a technical competition, but no real competition. The Firth-Sterling people put in the same bids as always, and the other people bid considerably higher?

Admiral MASON. Yes.

Mr. KITCHIN. About how many bidders were there this time?

Admiral MASON. The Firth-Sterling Steel Company, the Bethlehem Steel Company, and the Midvale Steel Company.

Mr. KITCHIN. Did you have any reason to think that there was any understanding between these bidders?

Admiral MASON. Not a bit. We have new advertisements out, and I have been asked for information by different firms concerning the

advertisements. I do not think there is any combination between them at all.

Mr. ROBERTS. Let me ask you this: A few years ago there was some concern located in Lynn who were making small projectiles for the Navy—

Admiral MASON. The American Ordnance Company, now consolidated with the American and British Manufacturing Company.

Mr. ROBERTS. Are they in competition at all, or doing any business?

Admiral MASON. Yes; they bid on minor-caliber projectiles and on some of the smaller target shell.

Mr. ROBERTS. They do not make the larger ones?

Admiral MASON. No; they do not make larger armor-piercing projectiles. We always have had competition for everything except armor-piercing projectiles ever since I have been in the Bureau—for target shell and common shell there was always competition. We did not advertise, but our custom was to write to the different firms and inform them that on a certain day we would open letters bidding on certain projectiles. Of course, now we advertise for everything. We got competition for target shells. All we want is to have the target shell strong enough to get out of the gun and get to the target without breaking up. An armor-piercing shell is an entirely different thing. It is something that not many people can make.

The CHAIRMAN. Would you recommend that we restore this proviso as to advertising for shell this year or not?

Admiral MASON. For policy I would prefer to leave it out. I will say that I have not the least idea who scratched it out. (See Appendix A for tabulated lists of contracts and prices of armor-piercing shell, 1903-1906, inclusive.)

The CHAIRMAN. The next is—

Ammunition and other supplies for new ships (heretofore included in appropriation "Armor and armament"), seven hundred and fifty thousand dollars.

That was included before in "Armor and armament?"

Admiral MASON. Yes. The following is a statement concerning this estimate:

Ammunition and other supplies for new ships, heretofore included in appropriation "Increase of the Navy, armor and armament."

Amount asked for, \$750,000.

It is most strongly urged that ammunition and other supplies for new vessels be appropriated for under the title "Ordnance and ordnance stores," for the following reasons:

First. In consequence of an exhaustive consideration of the subject by the Board on Construction, in conference with the Paymaster-General and the Judge-Advocate-General of the Navy, it has been decided that under existing law the appropriations under the various Bureaus under the general title "Increase of the Navy," should be construed as covering expenses for only such items of equipage as are defined by the Navy Regulations as coming under title "B."

This decision has been approved by the Secretary of the Navy, and tends to exclude the ammunition and other supplies asked for from the title "Armor and armament."

Second. Under existing conditions, with ammunition and ordnance supplies carried under the two titles "Armor and armament" and "Ordnance and ordnance stores," this Bureau, being by regulation forbidden to keep accounts, is absolutely unable to keep a businesslike control and cognizance of this material under the separate titles. When the ammunition and supplies under both titles

are issued to the naval magazines, the Bureau practically loses knowledge of the title under which the material is carried.

Great care has been and is taken by the Bureau to insure that in the purchase of these materials the proper separation of titles is observed, but, this done, the Bureau is practically powerless to further scrutinize the titles.

This lack of knowledge, as regards titles, is shared by the officials in charge of naval magazines.

The result is that the ammunition and, to a lesser degree, supplies are frequently issued under a title other than their proper one. This results in a transfer against the appropriation to which they are issued in favor of the one under which they are purchased. Knowledge of this transfer is not received by the Bureau from the accounting Bureau until a considerable time afterwards. The result of this is that the Bureau experiences great difficulty in preventing the deficiencies under certain appropriations which may result from such transfers.

A case in point is as follows:

In July, 1906, material, probably ammunition, was issued from the navy-yard, Mare Island, for other than new vessels. This material was carried under "Armor and armament." The result was a transfer of \$106,000 against the appropriation "Ordnance and ordnance stores." This transfer was not reported to this Bureau until the November statement received from the Bureau of Supplies and Accounts. In the meantime the monthly statements received from that Bureau showed a satisfactory balance under that appropriation, and indicated that, in that portion of the appropriation allotted to the month of July, there was an unexpended balance of about \$112,000. Acting on this information the Bureau felt justified in expending this balance.

It is very possible that the knowledge of similar transfers may not be received by the Bureau until after the end of the fiscal year, which would result in a deficiency forbidden by law, and which the Bureau would be powerless to prevent.

Appropriation for ammunition and supplies for new vessels under "Ordnance and ordnance stores," as is recommended, would place all these materials under one title and would prevent such transfers and the resulting embarrassment to the Bureau.

The above amount (\$750,000) has been deducted from the estimates under "Increase of the Navy, armor and armament."

NOTE(a).—Incident to the appropriation "Ammunition and other supplies for new ships" under appropriation "Ordnance and ordnance stores," it is requested that a clause be inserted providing that ammunition and other supplies already on hand or contracted for under appropriation "Armor and armament" shall be thereby transferred to appropriation "Ordnance and ordnance stores," the same as if purchased under that appropriation. Unless this is done an appropriation of \$2,000,000 will be required under "Ordnance and ordnance stores" to cover transfers of ammunition now on hand or contracted for and carried under "Armor and armament," which will be issued to new vessels after July 1, 1907. (See note under appropriation "Increase of the Navy, armor and armament.")

NOTE(b).—Should Congress fail to appropriate the above sum under "Ordnance and ordnance stores," it should be again included under "Increase of the Navy, armor and armament."

The CHAIRMAN. Have you cut down the estimate for armor and armament that much?

Admiral MASON. Yes. That is mentioned in the statement above.

Mr. KITCHIN. Before you leave that, at page 27 the appropriation under the main item was recommended this year to be \$4,146,000, and the reason of the great increase is because there are now more ships than heretofore?

Admiral MASON. Yes.

Mr. KITCHIN. Could you give us an approximate idea of what that would be if we had our present Navy completed, with all the ships authorized?

Admiral MASON. Under this heading the Bureau estimates that by the time the present construction is finished it will be increased to

\$5,197,000. This takes in all vessels down to and including the *New Hampshire*, *South Carolina*, and *Michigan*, and is what it is now estimated the appropriation "Ordnance and ordnance stores" will amount to.

Mr. KITCHIN. The amount of the annual cost after the ships are completed is a matter that is desired to be known as accurately as possible now, I think.

Admiral MASON. I have given that.

The CHAIRMAN. You can put that statement in?

Admiral MASON. Yes, sir. It does not affect the situation except in this: This \$750,000 is what we want appropriated this year for ammunition for new ships. I think the committee understand that it is not considered advisable to charge to the building of ships such stores as are expendable or perishable.

The CHAIRMAN. It is a matter of bookkeeping?

Admiral MASON. Yes. In addition to that, a clause will have to be put in this part of the bill, or under "Armor and armament," saying that the two millions of ammunition—that is, the powder, and so forth, that we already have purchased under armor and armament—should be transferred to ordnance and ordnance stores without a charge against that appropriation. That is, we have been purchasing the ammunition for these new ships. The note in the statement explains it.

Mr. ROBERTS. If this \$750,000 on page 27 is not allowed, you want an increase in armor and armament by that amount?

Admiral MASON. Yes. Incident to the appropriation "Ammunition and other supplies for new ships," under appropriation "Ordnance and ordnance stores," it is requested that a clause be inserted providing that ammunition and other supplies already on hand or contracted for under appropriation "Armor and armament" shall be thereby transferred to appropriation "Ordnance and ordnance stores," the same as if purchased under that appropriation. Unless this is done, an additional appropriation of \$2,000,000 will be required under "Ordnance and ordnance stores" to cover transfers of ammunition now on hand or contracted for.

The CHAIRMAN. With that exception you will get along just as you have in the past?

Admiral MASON. Yes; but we will not be bothered by transfers from one appropriation to another.

The CHAIRMAN. The next is "Purchase and manufacture of smokeless powder," \$500,000. That is the same as last year?

Admiral MASON. Yes, sir; the same as last year.

The CHAIRMAN. Can we not get that down, or have we got to have that every year?

Admiral MASON. It is the same thing every year. It has been so except the year of the Spanish war, and then it was \$1,000,000.

The CHAIRMAN. How much do you purchase and how much do you manufacture out of that?

Admiral MASON. We use it almost all up in the manufacture of powder at the Government plant at Indian Head. It practically keeps our powder factory running.

Mr. BUTLER. Where does the appropriation come from for smokeless powder?

Admiral MASON. Part of it out of the appropriation "Armor and

armament," and the remainder out of the various items under "Ordnance and ordnance stores."

Mr. KITCHIN. Outside of the smokeless powder secured under this appropriation, about how much do you spend for smokeless powder, if any?

Admiral MASON. Outside of this item of \$500,000 we have asked for about \$700,000 for powder for target practice and about \$1,000,000 for a reserve supply of powder.

Mr. KITCHIN. So that you really buy how much?

Admiral MASON. In all, we expect to expend about \$1,700,000 in purchase and \$500,000 in manufacture.

Mr. KITCHIN. You buy three or four times as much powder as you manufacture?

Admiral MASON. Yes. The Government factory turns out about one-fourth of the total amount.

Mr. BUTLER. What is your price now on the manufacture of smokeless powder?

Admiral MASON. The estimated cost of manufacture at the Indian Head plant is 54.6 cents per pound. This includes the cost of the alcohol used, but does not include interest on capital invested or administrative expense.

The whole question of the price of powder was recently referred to a joint Army and Navy board composed of officers familiar with the manufacture of powder. This board, after going over the subject very carefully, decided that a fair price to be paid to outside companies manufacturing smokeless powder for the Government was 69 cents a pound, the companies to furnish the alcohol. This amounts to a reduction of about 5 cents a pound on the price which has been paid for some years past, as the Government has heretofore been required to pay for the alcohol at about 4 cents per pound of powder, and has paid the companies 70 cents for the finished product, making the actual cost to the Government 74 cents.

Mr. ROBERTS. That is, the Government manufactures for 15 and a fraction cents less than you can buy it for?

Admiral MASON. That is true if you disregard interest on the plant and administrative expenses.

As I stated to the committee last year, there is no real competition between the companies manufacturing smokeless powder for the Government, as all these companies are practically controlled by a single management. This makes it necessary for us to watch the cost of production pretty closely, and to insist upon a reduction of price whenever experience at Indian Head indicates that such a reduction can be made without unfairness to the companies. The joint Army and Navy board, to which I have referred, looked at all sides of this question, and I am satisfied that its conclusion was fair to both sides. The new price fixed by this board, and which, as I have already stated, involved an actual reduction of nearly or quite 5 cents, has been applied to all contracts for smokeless powder made since the report was approved, October 1, 1906.

The CHAIRMAN. Can we not get a copy of the report of the joint Army and Navy board?

Admiral MASON. A copy of the report of the joint Army and Navy board concerning the price, etc., of smokeless is hereto appended, marked "Appendix C."

The CHAIRMAN. Have you any report showing the cost of the powder plant; how much we have spent on it?

Admiral MASON. Do you mean our own plant?

The CHAIRMAN. Yes.

Admiral MASON. We have an estimated cost. I think it is in the report of the joint board and also in the report that came to the Senate and House last year. I very much doubt the advisability of publishing the report of the joint board, as it contains information which ought not to be made public.

Mr. ROBERTS. Was the reduced cost of powder brought about by the reduction in the price of alcohol due to the free-alcohol bill?

Admiral MASON. No. The companies have never been required to pay duty on the alcohol used in the manufacture of powder for the Government. The alcohol is withdrawn from bond under certificates of the Bureau of Ordnance.

Mr. ROBERTS. In speaking of the price paid for powder you have included cost of alcohol, but it appears that you get that alcohol for them free of duty.

Admiral MASON. Yes. They pay for the alcohol, but we get it for them free of duty. If this alcohol paid the tax, it would make the powder cost very much more. We sign permits and it is very carefully watched by our inspectors to see that none of the alcohol delivered to the companies under this arrangement is used for anything else than Government powder.

Mr. ROBERTS. I want to get in mind this difference in cost. At one time you furnished the alcohol to the private manufacturers and then paid them so much a pound for the powder.

Admiral MASON. We paid 70 cents a pound and furnished the alcohol, which amounted to 4 cents more. This made the powder cost the Government 74 cents. We now pay 69 cents and require the companies to furnish their own alcohol, but we continue the arrangement with the Treasury Department by which the alcohol is furnished free of duty.

Mr. ROBERTS. They pay for the alcohol themselves at the price which would be charged to you if you had to furnish it?

Admiral MASON. Yes.

Mr. KITCHIN. Who has charge of the Government powder factory now?

Admiral MASON. Lieutenant-Commander Strauss.

Mr. KITCHIN. How long has he been there?

Admiral MASON. He has been there about six months this time. He served one tour of duty there several years ago.

Mr. ROBERTS. How long a tour of duty do officers get there?

Admiral MASON. We try to keep them three years on shore duty at such important stations as the powder factory, the Bureau, and the torpedo station.

Mr. KITCHIN. Have you any opinion as to the probable increase in the cost of smokeless powder at the Government plant at present as compared with the cost of it, say three years ago?

Admiral MASON. I think we have cheapened the process somewhat, but I am not able to say exactly how much.

Mr. KITCHIN. You think we make it as cheap now as we ever did?

Admiral MASON. Decidedly so; and in addition to that, we have bettered the quality.

Mr. KITCHIN. You have cheapened the cost and improved the quality at the Government plant?

Admiral MASON. Yes.

Mr. KITCHIN. Does the Government powder compare favorably with that which you buy?

Admiral MASON. It is exactly the same. We watch the processes of the powder companies very carefully, and require them to conform in all essential respects to the processes which we have found important at the Government plant.

Mr. KITCHIN. So that, as far as possible, there is no difference in the product?

Admiral MASON. There is practically no difference. We have commissioned officers as inspectors, who exercise a general supervision over the details of manufacture at the various plants; and they are assisted by subinspectors who are carefully trained, skilled employees of the Government, and who are at all times actually on the ground supervising every detail of manufacture.

Mr. KITCHIN. Is the cost of that inspection included in the 69 cents paid for the powder, or does the Government have to pay that in addition to what it pays for the manufacture?

Admiral MASON. The cost of inspection is an additional charge.

Mr. KITCHIN. Is it included in the cost at the Government factory?

Admiral MASON. Yes.

Mr. KITCHIN. So that, in order to get at an accurate comparison between the cost of powder manufactured at the Government plant and that bought from the powder companies, you would have to add the cost of this inspection to the cost of the powder purchased from the companies?

Admiral MASON. That is one of the matters that was taken into account by the joint Army and Navy board in fixing the price to be paid. The whole matter of cost was gone over very carefully by this board, which was made up of officers nominated for the duty by the Naval Bureau of Ordnance and the Chief of Ordnance of the Army. We have kept in touch with the Army throughout this whole matter, because they use the same powder, although not as much of it as we do.

The **CHAIRMAN.** What are these "Machine tools for navy-yard, Boston, thirty-nine thousand dollars?"

Admiral MASON. The following statement shows the necessity for this appropriation:

Machine tools, navy-yard, Boston, Mass.	\$39,000
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This estimate embraces the following items:

Machine tools	\$30,000
Small tools	4,000
Overhead trolley system for machine shop	2,000
Machinery and tools for blacksmith shop	3,000
Total	\$39,000

In the last naval bill Congress appropriated \$15,000 for the purchase of machine tools for the Ordnance Department at this yard. Prior to this installation thus provided for this ordnance shop had no machine tools of any kind. Tools purchased under this appropri-

ation carried in the naval bill of 1906-7 have brought this equipment of the ordnance shop at this yard about on an equality with the ordnance-shop equipment of a first-class battle ship.

During a period of some years this yard was virtually closed, and, especially in the ordnance department, fell into a condition which has required practically complete reequipment.

This yard is yearly increasing in importance with the growth of the Navy, and battle ships are now regularly assigned there for docking and repair.

At the present time there are five battle ships at this yard under repairs, and the ordnance department of the yard has been almost helpless on account of lack of machine tools, necessitating the ordnance work being performed by other departments at the yard which were themselves overtaxed with work.

In order to place the ordnance department on a proper footing for the work required, this further appropriation of \$39,000 for the purchase of machine tools and equipment is considered absolutely necessary.

The CHAIRMAN. Can you not use the money out of the appropriation for ordnance and ordnance stores for this?

Admiral MASON. No, sir. We have so many pulls on ordnance and ordnance stores that we have been compelled to put in these outside requisitions.

The CHAIRMAN. The next is on page 28.

One electric travelling crane of forty thousand pounds capacity for proposed new storehouse at navy yard, League Island, Pennsylvania, seven thousand five hundred dollars.

What is that for? Have you a crane there now?

Admiral MASON. One electrical traveling crane of 40,000 pounds capacity for proposed new storehouse at navy-yard, League Island, Pa., \$7,500. The Bureau has requested the Bureau of Yards and Docks to include in its estimates the sum of \$46,000 for an addition to the ordnance storehouse, and if this is allowed the traveling crane will be necessary for its proper equipment.

Ordnance storage facilities at this yard are inadequate, especially as regards guns, mounts, etc., and the crane will be necessary.

Mr. BUTLER. Forty-six thousand dollars?

Admiral MASON. Yes; for an addition to the ordnance storehouse, and if the committee grants that appropriation a traveling crane is necessary to go into it.

Mr. BUTLER. I have that building in my mind, and is it possible that that building is not large enough for League Island?

Admiral MASON. No, sir.

Mr. BUTLER. Will you tell me how many war ships are at League Island now?

Admiral MASON. I do not know, but I do know that within a month the Bureau has received a request to keep the ordnance material in store on board the *Brooklyn* in reserve because there was not storage room enough.

Mr. BUTLER. That is not your fault.

Admiral MASON. At that yard they are liable at times to have four or five ships.

The CHAIRMAN. The next is—

For Naval Gun Factory, Washington, District of Columbia: New and improved machinery for existing shops, one hundred and fifty thousand dollars.

Is that the same as last year?

Admiral MASON. The same.

The CHAIRMAN. Do you have it every year?

Admiral MASON. Yes. A like amount was appropriated last year and it is necessary that the same amount should be appropriated this year, owing to the increased number of shops and the working of several shifts in all the shops. The consequent wear and tear on the present machinery being very great and a large portion of it nearing its limit, it requires replenishment in order that some sort of a standard of efficiency may be kept up. This is absolutely necessary.

Approximate total value of machinery at Washington Navy-Yard is about \$4,000,000.

The CHAIRMAN. The next is—

Machinery, cupolas, furnaces, and so forth, for proposed new foundry, one hundred and twenty-one thousand and seventy-five dollars.

Admiral MASON. That is the same thing that we thrashed out last year. It is absolutely necessary.

The reasons for requiring this item have been so fully stated they can only be reiterated. A new foundry is indispensable for the economy of the gun factory. It is the most needed of all the improvements that could be recommended. The present foundry is antiquated and inadequate in size and unsuitable as a foundry for an institution like the Naval Gun Factory. On account of its unsanitary condition it is a menace to the health of the employees and officers of the yard in its present situation. The Government losses every year by not having better facilities would soon equal the amount requested to properly provide for all the requirements of this portion of the plant and its increased product would materially add to the production of armament by this factory, saving in both time and expense. At the present time the yard foundry is working up to its extreme capacity and in case of war the emergency conditions could not be met. We are now practically at a standstill on account of our inability to obtain castings due on existing requisitions. The reasons for this foundry were fully set forth in my hearing before the House Naval Committee last year. (No. 38, January 11, 1906.)

Mr. BUTLER. It is the beginning of a factory that will ultimately cost \$4,000,000?

Admiral MASON. The estimate for this \$121,075 is for machinery. I do not know how much yards and docks has in for this year, but I think it is \$150,000 to start with. It will cost \$300,000 for the building before it is finished. It is going to be a model foundry. I consider it absolutely necessary. We are losing money all the time and losing time at the navy-yard here on account of the lack of facilities for making castings.

Mr. ROBERTS. These castings you propose to make here are the small castings?

Admiral MASON. Small castings and type large castings. The castings people are so busy now that unless we give them a big order they will not touch it. When we start in on a new design we will

say, "Here are certain improvements we will put in," and we do not want to send out and get castings for 100 mounts until we try 1 mount. We try to get castings for a type mount, and they will not touch it. One firm said, "We will not stop work just to help the Government for that."

Mr. BUTLER. Can you not build it for less than \$300,000?

Admiral MASON. You can build a shack down there. The building proposed will cost \$300,000, and the necessary tools, cupolas, furnaces, etc., \$121,000 more.

Mr. BUTLER. Would not that do temporarily? Is it not a fact that after the business pressure subsides a little there will be plenty of factories to make these?

Admiral MASON. I do not think so. We have always been subjected to delays in getting castings and have had to pay high prices. I think we should have a foundry, and have the best that is going and the most modern.

The CHAIRMAN. Of course that is the old story and we know all about it, and you can thrash it out here for two hours and not get any decision out of it.

Mr. ROBERTS. Do you need that 110-ton crane, irrespective of the new buildings?

Admiral MASON. Yes. This estimate is for the remodelling of the 110-ton crane in north gun shop, and has no connection with the new foundry. The estimate is for remodelling 110-ton crane in north gun shop, \$30,000.

The 110-ton crane in the north gun shop has been in use about fifteen years, and the carriage and trolley are somewhat antiquated, besides being very much worn. It is doubtful if these parts will last over eight months, and they should be replaced with the latest improved parts, which will make a serviceable crane for use in years to come. Original cost of this crane, \$82,000.

The CHAIRMAN. The next is "Machinery for locomotive house, twelve thousand dollars."

Admiral MASON. Machinery for locomotive house, \$12,000.

The present locomotive house is inadequate for the number of locomotives and locomotive cranes we now have, as the extension of the Gun Factory has acquired the purchase of additional ones recently. It is therefore necessary that we should have a larger house to accommodate these machines. The present one does not admit of extension and the ground it occupies is needed for other purposes.

Without proper housing facilities in winter steam must be kept up on locomotives and cranes all the time to prevent freezing, thus greatly increasing running expenses due to attendance and consumption of fuel. Seven of the ten engines and wreckers can not now be housed and are consequently exposed to the weather on the outside.

This machinery is necessary if the locomotive house is built. Itemized, the money will be spent as follows:

One 25-ton overhead crane, complete, with runways.....	\$8, 000
Tracks, switches, frogs, and appliances for drop pit.....	3, 000
Hydraulic jacks, tube cleaners, pneumatic drills, and hammers for repair work	1, 000
	<hr/> 12, 000

The CHAIRMAN. That is dependent upon the authorization of the building?

Admiral MASON. Yes.

The CHAIRMAN. The next is "For modernizing the battery of the *Iowa*, thirty-six thousand dollars."

Admiral MASON. The *Iowa* has been in commission between nine and ten years, during which time no material changes in her battery have been made. She is at present in about the same condition as regards battery as were the *Massachusetts* and *Oregon* before it was decided to modernize their batteries. The *Iowa* will doubtless be considered as an effective unit of the fleet for several years to come, and should be maintained in an efficient condition so far as her battery is concerned. To rearm her with 12-inch 45-caliber and 8-inch 45-caliber guns in balanced turrets (her 12-inch turrets are already of this type) would involve an additional expenditure of about \$940,000, which is not believed to be warranted. The expenditure of the sum estimated for will put her as far ahead of the *Indiana* class as she was originally.

What it is intended to do in ordnance is to furnish modern sights for 12-inch and 8-inch turrets, new sighting hoods, electric ammunition hoists, and electric elevating gear. I think it is necessary. I think those ships, if we do not modernize them pretty soon, will go into the first reserve.

Mr. ROBERTS. And then into the scrap heap?

Admiral MASON. Yes.

The CHAIRMAN. The next is, "For modernizing the batteries of the *Monterey* and the *Monadnock*, twenty thousand dollars." What about that?

Admiral MASON. They are old monitors. These vessels are maintained on the Asiatic Station, and in time of war would doubtless be depended on for the defense of some port in the Philippines. It is extremely desirable that they be made as efficient as possible.

This amount will equip these vessels with new sights, new sighting hoods, and modification of turret gear.

Mr. BUTLER. What kind of guns have they?

Admiral MASON. Medium-power modern guns.

Mr. BUTLER. Effective guns for armored purposes?

Admiral MASON. Yes; effective guns.

Mr. BUTLER. Are they not ready for the scrap heap?

Admiral MASON. With these modifications they will last for some time. They will probably never go to sea again. But they are very good floating forts or batteries for the Philippines. I should say that would be a good investment, that \$20,000.

The CHAIRMAN. How about this next provision?

For providing new turret sights for the four monitors of the *Arkansas* class, sixteen thousand dollars.

Admiral MASON. That is the same thing, except that these are monitors of the *Arkansas* class. These vessels are modern in all respects except their turret sights, and their fighting value is much below what it could be made by the expenditure of this sum of money.

Turret sights cost about \$2,000 per gun.

The CHAIRMAN. The next is—

New battery for the *Brooklyn*, one hundred and seventy-seven thousand two hundred dollars.

Admiral MASON. The *Brooklyn* is an armored cruiser, still very good.

Congress has, in two appropriations, provided more than this sum for new guns and armor for the *New York*; the *Brooklyn* has been in commission more than ten years and, to be made effective, should be equipped with a more modern battery; if so equipped she would again become the equal or superior of the *New York*. To equip her with 8-inch 45 caliber guns in balanced turrets would require an additional expenditure of \$540,000 which, as in the case of the *Iowa*, is not considered advisable nor warranted, considering the cost that would be involved under other bureaus.

It is intended to furnish this vessel with a new 5-inch battery, new sights for turret guns, and modify turret ammunition hoists and mounts.

The CHAIRMAN. Has she ever had anything done to her guns since she was built?

Admiral MASON. I think not, except that during the Spanish war the 5-inch mounts were rendered useless, and they were replaced.

Mr. BUTLER. Have you any objection to telling us why it is not advisable to thoroughly modernize the *Brooklyn*? Just for the information will you tell us that? It will cost, you say, five or six hundred thousand dollars to modernize her?

Admiral MASON. In ordnance alone.

Mr. BUTLER. In ordnance alone? If you brought her up to a first-class ship?

Admiral MASON. Work has to be done under Steam Engineering and Construction and Repair, and other bureaus. That \$500,000 in ordnance would mean probably three times as much in construction, and would require additional expenditures in equipment. The ship would then be but little better than as if the plan estimated for is carried out, and the work would take so long that the vessel would be unavailable for use for three or four years. The proposed work can be done in a year or less.

Mr. ROBERTS. Is she not now being thoroughly overhauled at the New York yard?

Admiral MASON. No; she is in ordinary or reserve at League Island.

Mr. ROBERTS. The *New York* is being overhauled?

Admiral MASON. Yes; the *New York* is being overhauled. That was authorized by Congress. We expect to put the *Brooklyn* in pretty near as good condition as the *New York* at very much less expense. The changes in the *New York* were more extensive, as she, though not much older than the *Brooklyn*, was greatly inferior to her as to turrets and turret gun mounts. Half measures would have been of no use in her case.

Mr. ROBERTS. Steam engineering is tearing her all to pieces now.

Admiral MASON. Yes. Being an older ship than the *Brooklyn*, she needs more repairs.

Mr. BUTLER. If you put these new guns and improvements on the *Brooklyn*, would she then go in the battle line of the Navy?

Admiral MASON. No; she is an armored cruiser.

Mr. BUTLER. Do you remember when she was built?

Admiral MASON. Ten or twelve years ago. She was completed in 1896.

She is an excellent ship, and although not as powerful as the present armored cruisers by any means, either as regards battery or protection, the *New York* and *Brooklyn* still are speedy, 22-knot vessels, and will put in a good many years' service as armored cruisers yet.

Mr. BUTLER. A modern armored cruiser would cost something like \$5,000,000?

Admiral MASON. Yes.

Mr. BUTLER. And would it not be wise to modernize the *Brooklyn*, if it could be done for \$2,000,000?

Admiral MASON. I don't think so, because after commencing work you would probably find that it would cost a good deal more and it would take a long time. Her boilers, of course, will not last forever, and they would require replacing, and her engines would finally wear out. It is a good deal better to let her go this way and last ten years longer.

Mr. BUTLER. In four or five years you would expect the *Brooklyn* to be ready for the reserve basin, would you not, or for the retirement list?

Admiral MASON. In five years from now I would say the *Brooklyn* should probably go on the first reserve list. That is not the retired list, but laid up for use in an emergency.

Mr. BUTLER. She has been a good ship.

The CHAIRMAN. How about this next item—

For completing the work of modifying four-inch forty-caliber mounts, and providing new sights; and for modifying five-inch forty-caliber mounts, and providing new sights for same, two hundred and thirty-five thousand dollars.

Admiral MASON. The estimates for 1907 include an item of \$320,000 for these purposes, but Congress did not appropriate. Such of the work as was absolutely necessary for fitting out ships on recommissioning has been done out of current appropriations as a part of the general work of the Bureau. The estimates now submitted cover work which will be necessary to fit for recommissioning all vessels carrying guns and mounts of the character mentioned.

The CHAIRMAN. Does that cover it all?

Admiral MASON. Yes; I think so.

The CHAIRMAN. The next is—

For fire-control instruments for nineteen battle ships and twelve armored cruisers; for fire-control instruments for four monitors and twenty-five cruisers, five hundred and sixty-seven thousand dollars.

Is this something new?

Admiral MASON. Yes; this comes from the target practice. The present system installed in the vessels was designed to fulfill the requirements of the slow rate of fire used a few years ago.

Experience at target practice indicates that rapid hitting is possible, and information from abroad indicates that rapid hitting is necessary.

We have improved the guns, accessories, mounts, and ammunition until each gun can fire rapidly and accurately; but the batteries as a whole are inefficient, because we can not transmit rapidly to

the guns the information absolutely necessary to insure accuracy, nor is the system sufficient to permit of control of rapid fire.

The installation of a new system is necessary before we can reap any commensurate benefit in battle efficiency from the earnest work with the guns in the last few years. The ships will not be ready for action until an improved system is installed.

The CHAIRMAN. Do you want to do that all at once—in one year—or can you cut that down?

Admiral MASON. No, sir; that ought to be done at once.

The CHAIRMAN. We have lived all these years without them.

Admiral MASON. Yes; and we went along for a long time without hitting the target, too. All the nations abroad are doing this. I think we surely ought to have this appropriation.

The CHAIRMAN. The next is—

For the manufacture, purchase, repair, and maintenance of a reserve stock of mines and mine appliances, two hundred thousand dollars.

Admiral MASON. That is a new item.

The mine outfits of battle ships and armored cruisers are complete and the torpedo station is prepared to furnish the mine outfits to the new ships as they go into commission.

In order to carry out the recommendation of the General Board, the Bureau has included in its estimates the amount necessary to manufacture and prepare 500 reserve mines in addition to those carried by the ships.

Our present outfit of mines consists of 13 for each battle ship and armored cruiser, and these mines are carried on board for self-protection—that is, when forced to anchor in the vicinity of an enemy for coaling or making repairs the ship or fleet can send out its mines and lie secure behind them. Offensive mines, such as were used by the Japanese for blockading Port Arthur, or a large supply of defensive mines for advanced bases we have not on hand.

It has been calculated that we should have at least 2,500 mines for use in war, and this item is based on the supposition that we should accumulate that number in five years, at the rate of 500 per year.

That is only getting ready for the emergency.

The CHAIRMAN. Do you regard that as important this year?

Admiral MASON. Yes; it is regarded as very important.

The CHAIRMAN. We would like to have you put down in the hearings those things in the line of improvements which you regard as most important; indicate in the order of importance all of these items.

Admiral MASON. Very well.

The CHAIRMAN. The next is—

For lining four twelve-inch Mark III guns; for replacing one hundred three-inch Mark III breech plugs; for replacing Mark IX locks; for gas ejectors for seven-inch, six-inch, and five-inch guns; for fifty air compressors, and for repairs and changes to guns and mounts, one hundred and fifty-five thousand dollars.

Why could not that be done under your appropriation for ordnance and ordnance stores?

Admiral MASON. It could if you would increase that appropriation enough for that. The necessity for this appropriation is as follows: The erosion of guns at a high pressure and with the large charges of

powder continues, making necessary the relining of the larger calibered guns after the firing of comparatively a few rounds. No effective way of stopping it has been discovered, but various methods are being tried. All metals so far subjected to erosive tests show such erosion.

The apparently poisonous effect of smokeless-powder gases in inclosed spaces has rendered necessary some method of gas ejection for medium-caliber guns. Blowbacks from these guns are infrequent when the present combined sponge and rammer is used, but nevertheless the gas makes its way into the gun spaces, rendering them uninhabitable after a brief period. Loaders are frequently overcome by these gases. There is also possible danger of a spark igniting them when they are collected in any inclosed space, with danger to personnel and inflammables as well as ammunition.

The excessive use of small breech mechanisms which fire very quickly and require a great deal of exercise to get the best results in the present systems of target-practice competition, and as a prerequisite to good battle and war conditions, has caused much wear of the same, and a number of 3-inch breechblocks will have to be replaced. This is a matter which can be provided for in future by the supply at first of spare breechblocks for guns subjected to such excessive work, so far as the metal is concerned, but no reserve was supplied when the guns were built, and it should be now.

The approximate expenditures under this appropriation are itemized as follows:

Reline four 12-inch guns, at \$9,000 each.....	\$36,000
Replace 100 3-inch breechblocks.....	6,000
Replace 180 Mark IV locks.....	10,000
400 gas ejectors, intermediate battery.....	60,000
Air compressors, 50 at \$260.....	13,000
Repairs and changes to guns and mounts.....	30,000
Total	155,000

Mr. BUTLER. Have you anything additional to tell us since your last hearing in regard to the effect on these guns of firing them occasionally in target practice?

Admiral MASON. No; except we know that they erode even more than we expected with the high velocities.

Mr. BUTLER. I understand that the men can be trained in target practice just as effectively and accurately by using a less charge.

Admiral MASON. Yes; the men can be; but we can not be as sure of what the material is going to do.

The CHAIRMAN. How about this next item:

For one hundred eighteen-inch torpedoes; converting sixteen destroyers to modern boats; converting eleven three and fifty-five one hundredths meter boats to five-meter boats, six hundred and sixteen thousand dollars.

Admiral MASON. This whole torpedo question is a burning one. It is worse now than the reserve ammunition was. We have not even enough torpedoes to supply our ships, and this estimate is to supply and overcome deficiencies actually existing by the purchase of 100 18-inch torpedoes, the converting of 16 destroyers to use these new torpedoes, and the converting of 11 of the larger torpedo boats to use 5-meter torpedoes of the type now used by the destroyers. We have now in service 16 destroyers, 15 torpedo boats, 8 battle ships, and 1

submarine that use 5 m. by 45 cm. torpedoes. These ships require for their full armament according to existing allowances 142 torpedoes. We have for the supply of these ships only 100 torpedoes of the type they use. The shortage is, therefore, 42 5-meter torpedoes, which means that we are short of our full supply of this type the equipment for 10 destroyers. A similar condition exists as regards the supply of short torpedoes (3.55 m. by 45 cm.). We have 3 battle ships, 11 large torpedo boats, and 7 submarines that use the short torpedo and these vessels require 86 torpedoes. Eliminating the obsolete torpedoes of this size, which are not fit for use in war, we have 62 torpedoes for the supply of these vessels. This is a shortage of 24 torpedoes, which is a supply for 6 of the larger torpedo boats.

It is designed to remedy the present situation by the purchase of 100 5 m. by 45 cm. torpedoes. This new torpedo, however, requires a greater pressure of air than the present air plants of the destroyers can supply, so to use them the destroyers will need new compressors, and by "converting to modern boats" is meant the installation of new air plants.

If this is done we will then have an excess of the old type of 5 m. torpedoes, and to use these, and at the same time relieve the shortage in short torpedoes, it is desirable to change the 11 larger boats (which are as large as the smaller foreign destroyers), so as to fit them to use the long torpedo. This is a step toward fitting these boats for the high-powered torpedoes, which will ultimately become necessary when the older type of torpedoes is exhausted. The material taken out of the destroyers will not be scrapped, but can go into reserve for the torpedo boats and the tubes of the boats will be lengthened, not replaced.

Mr. BUTLER. How long does it take to manufacture the torpedoes?

Admiral MASON. The Bliss company can manufacture 100 a year with their present equipment. We hope to be able to manufacture 100 a year when Congress gives us a torpedo factory at Newport, which we are asking for this time. Of course the factories can be increased in size. Just at present we are not getting along as fast, because Bliss is frozen up.

The CHAIRMAN. How many concerns are manufacturing torpedoes?

Admiral MASON. In this country?

The CHAIRMAN. Yes.

Admiral MASON. Only one. The E. W. Bliss Company has control of the situation. That is why we want a torpedo factory.

The CHAIRMAN. Has that company a capacity of 100 a year?

Admiral MASON. Yes; it has a capacity of at least 100.

Mr. ROBERTS. Before you get away from that, I wanted to understand this, "Converting eleven three and fifty-five one-hundredths meter boats to five-meter boats." What do these dimensions mean?

Admiral MASON. They are boats that fire 3.55-meter torpedoes—the short torpedoes.

Mr. ROBERTS. That is the size of the torpedoes that they fire?

Admiral MASON. Yes; they were the old original boats that fired the short torpedoes. We have only a few of those torpedoes.

Mr. ROBERTS. That does not relate to the measurement of the boats at all?

Admiral MASON. No; to the torpedo used and tubes on board.

The CHAIRMAN. The next is—

For twelve wrecking outfits; repairs and alterations to torpedoes and torpedo gear, including sights, training gear, new tube parts, and so forth, and to replace torpedoes expended in practice, seven hundred and sixty-six thousand dollars.

Admiral MASON. That is a mistake. That should be \$150,000.

The appropriation should read: "For twelve wrecking outfits; repairs and alterations to torpedoes and torpedo gear, including sights, training gear, new tube parts, etc., and to replace torpedoes expended in practice, \$150,000," instead of \$766,000.

Briefly, the reasons are as follows:

It is desired to add to the stations where wrecking outfits are kept, and also to keep a larger supply than heretofore of wrecking material at New York, Norfolk, and Boston. This will not be expended in one year, but should be provided and kept for an emergency. There should be an appropriation for this outside of the routine ordnance and ordnance stores.

Sights and training gears should be put on the tubes of all sea-going torpedo craft. This will require approximately \$25,000 for the destroyers and larger boats—45 tubes in all.

Torpedoes in the past have been considered to a large extent indestructible, but it has been found that 25 or 30 are lost, worn out, or damaged during the year. The increase in efficiency of the torpedo service will cut down the loss, but the increased number of runs will increase the number of worn-out torpedoes. This is an allowance of loss of about 6 per cent on the total allowance of the Navy, and is considered a very small allowance.

The committee's attention is called to the clerical error in the amount asked for under this appropriation, which should be \$150,000, instead of \$766,000.

This is itemized as follows:

12 wrecking outfits.....	\$25, 000
Repairs and alterations to torpedoes and torpedo gear, etc.....	25, 000
Replacing loss of torpedoes (20 per year).....	100, 000
Total	150, 000

One wrecking outfit consists of 12 mines (32 pounds gun cotton each) and necessary wires, batteries, etc., about \$2,000.

Mr. ROBERTS. What are those wrecking outfits? What is the use of them?

Admiral MASON. By direction of the Department we have to keep in stock wrecking outfits for the blowing up of derelicts along the coast for the protection of commerce.

Mr. ROBERTS. What are those outfits, boats or ships?

Admiral MASON. A wrecking outfit consists of 12 mines, 4,000 feet of armored cable, a hand electric generator, tools, chemicals, and electrical testing instruments for care and test of outfit. When the Department is informed that there is a derelict on the coast menacing navigation the nearest available man-of-war or auxiliary is sent to the nearest yard and gets an outfit and goes out and destroys the wreck.

Mr. ROBERTS. We have authorized a derelict destroyer in the Revenue-Cutter Service. She is now being built. When that is in operation will not that do away with the necessity of the Navy Department doing this work?

Admiral MASON. If she can look out for all the wrecks along the coast. The Navy will be called on for mines anyway; we gave a revenue cutter an outfit last week. The Navy Department will probably be called upon for ships also. We have had as many as three ships out after wrecks at once during the past year. We now keep a wrecking outfit on hand at Boston, Newport, New York, Norfolk, Key West, Port Royal, Pensacola, Mare Island, Puget Sound, and Cavite.

It has been found that one outfit is not sufficient, especially on the east coast of the United States, and it is proposed to add to the present equipment so as to provide wrecking outfits as follows: Boston, 2; Newport, 6 (supply station); New York, 3; Norfolk, 3; Key West, 1; Port Royal, 1; Pensacola, 1; Mare Island, 2; Puget Sound, 2; Cavite, 1.

Mr. ROBERTS. How many of those do you use in a year?

Admiral MASON. We have used, I guess, about 10 or 12 in the last year. It is difficult to say just how many will be used, but one heavy gale on the coast may call for six or eight outfits at once.

It must be understood, however, that the explosives and mine cases only are expended. Once provided, the outfits can be kept up very cheaply.

The CHAIRMAN. The next is:

Reserve guns for auxiliary cruisers: For reserve guns for auxiliary cruisers, five hundred thousand dollars.

Can we cut that appropriation down?

Admiral MASON. I do not think we got any last year.

Mr. ROBERTS. There is a mistake here in the bill. The amount is carried out in figures as only \$50,000.

Admiral MASON. We did not get that last year. That should be "For reserve guns for auxiliary cruisers, \$500,000." This is for repairing, modernizing, and fitting with modern sights a considerable number of 4 and 5 inch 40-caliber guns and mounts, and for procuring an additional number of new guns and mounts. The total amount appropriated under this head up to the year 1905-6 was \$2,075,000. The Bureau did not estimate for any sum for the present fiscal year.

It is now believed to be very necessary to obtain additional funds, as there are on hand a considerable number of guns and mounts of more or less obsolete types which are still perfectly serviceable, but are not efficient, owing to their not being modernized, and the Bureau can not out of its regular appropriations perform the work of repairing, modernizing, and fitting with modern sights the guns and mounts above mentioned, and this estimate is to cover such work, which, if done, will secure a reserve of modernized guns and mounts, as well as for procuring an additional number of new guns and mounts to be available for use in time of war.

This is itemized as follows:

Fifty 3-inch 50-caliber guns, Mark V, with mounts and sights, at \$5,500	\$275, 000
Fifty-five 4-inch mounts for 40-caliber guns to be modernized and fitted with yoke sights	105, 000
Sixty mounts for 5-inch 40-caliber guns to be modernized and fitted with modern sights	126, 000
Total	506, 000

There is a small available balance under this appropriation not yet obligated.

The CHAIRMAN. What was it last year?

Mr. BUTLER. Did we make this appropriation last year?

Admiral MASON. No, sir.

The CLERK OF THE COMMITTEE. This is a new item.

The CHAIRMAN. The next is "Reserve ammunition."

Admiral MASON. Reserve ammunition, \$4,000,000.

Last year this title was "Reserve powder and shell." It has been changed to "Reserve ammunition" because the components of ammunition other than powder and shell, particularly cartridge cases and powder tanks, are just as necessary as the powder and shell heretofore appropriated for.

There is now no appropriation under which a reserve of cartridge cases and powder tanks can be accumulated. As a result, there is now no reserve of these necessary articles, except for the older calibers.

As stated in last year's estimates, it seems imperative that there should be acquired at the earliest date practicable a reserve supply of ammunition sufficient to refill the main battery magazines of the fleet twice and the secondary battery magazines once. This is because a modern battle ship at her maximum rate of gun fire will exhaust the magazines supplying her main battery in about half an hour, and her secondary battery ammunition will not last much longer. That the accumulation of this reserve should be undertaken at once is evidenced by the fact that the manufacture of shell of sufficient merit to meet the Bureau's requirements has, in many instances, taken from two to three years.

The expenditures which would be required to provide a reserve of the proportions stated above are so great that it is realized that a sufficient reserve to fill the magazines of the fleet once is all that can now be attempted. It was estimated last year that \$9,126,526 would be required to accumulate one reserve of ammunition. Toward this \$2,000,000 was appropriated by the last Congress.

At this rate of accumulation, the small reserve sufficient to fill the magazines of the fleet only once will not be completely appropriated for until the fiscal year 1910.

The following is an itemized statement of the probable expenditures under this appropriation:

Smokeless powder	\$911, 200
Armor-piercing shells, mostly above 6-inch caliber	2, 600, 000
Powder tanks and cartridge cases (to accumulate 20 per cent of one reserve)	368, 000
Fuzes	70, 000
Incidentals: Primers, bursting and ignition charges, distance pieces, etc	50, 000
	<hr/> 4, 000, 000

Much difficulty is experienced in procuring armor-piercing shell that will meet the Navy's severe requirements, and it takes some time to manufacture them.

This appropriation will provide about two-thirds of one reserve for all vessels on the Navy list.

Mr. ROBERTS. What do you say about the provision that "no part

of this appropriation shall be expended for the purchase of shells or projectiles," and so forth?

Admiral MASON. I should prefer that it should go out. This was all discussed under a previous question.

The CHAIRMAN. The next is—

Reserve guns for ships of the Navy: Purchase and manufacture of reserve guns for ships of Navy, one million three hundred and ninety-six thousand five hundred dollars.

Admiral MASON. Reserve guns for ships of the Navy. For reserve guns for ships of the Navy, \$1,396,500.

By direction of the Department in its indorsement of August 15, 1905, and in accordance with a recommendation of the General Board, the Bureau in its last estimates submitted an item of \$1,500,000. This was approved by the Department, but was reduced by Congress to \$750,000.

This estimate is submitted for reserve guns for ships of the Navy based on the total number of high-power guns now afloat, down to and including the *Idaho*, a fair working reserve for the present being considered one-fourth of that number. The amount estimated should provide the following guns based on present Naval Gun Factory prices, viz: Twelve 12-inch Mark V guns, two 10-inch Mark VII guns, two 8-inch Mark VI guns, two 7-inch Mark II guns, two 6-inch Mark VIII guns, seventy-five 3-inch Mark V guns and mounts.

This appropriation is considered as absolutely necessary for the efficiency of the Navy. The manufacture of these guns must be undertaken at the earliest practicable moment in order to have them ready to replace guns while withdrawn from service for lining, and as this process is very slow the necessity is augmented.

All vessels after the *Idaho* have their reserve guns estimated for under the appropriation "Armor and armament," and will be considered a part of the armament of the vessel, the allowance for reserve being 25 per cent.

The CHAIRMAN. We went into this fully last year.

Mr. BUTLER. We had how much last year?

The CHAIRMAN. Seven hundred and fifty thousand dollars.

Admiral MASON. We have obligated that, and the guns are being made.

The CHAIRMAN. The next is—

Torpedo station, Newport, Rhode Island: For labor, material, freight and express charges; general care of and repairs to grounds, buildings, and wharves; boats, instruction, instruments, tools, furniture, experiments, and general torpedo outfits, and new smokestack and flues for boilers, seventy thousand dollars.

Admiral MASON. This appropriation has been itemized, as directed by the Department in its circular letter of September 7, 1906, as follows:

For labor, material, freight and express charges.....	\$39,700
General care of and repairs to grounds, buildings, and wharves.....	17,700
Boats, instruction, instruments, tools, furniture, experiments, and general torpedo outfits.....	7,600
Total.....	65,000

It is pointed out that the estimated amount set opposite each item as a possible expenditure is only approximate and liable to be increased or diminished by unforeseen contingencies, and also that the

aggregate amount appropriated for several purposes may be, in fact, differently distributed among them.

This appropriation is the same as for a number of years past, and is for labor, material, maintenance, and the general routine expenses of the station, as detailed above.

New smokestack for boilers, \$5,000.

The \$5,000 additional is for a new smokestack for boilers.

This new smokestack for boilers is to provide sufficient draft for the present boilers. The present smokestack was erected about 1874 for a 50-horsepower locomotive boiler, and afterwards this boiler was removed and at intervals four other boilers installed, two of 80 horsepower, one of 75 horsepower, and one of 100 horsepower. The original stack that was sufficient for the 50-horsepower boiler is entirely inadequate to take care of four boilers of combined 335 horsepower, and this stack is also necessary to obtain the best and most economical work out of the boilers, whereby the efficiency of the plant will be materially increased. In case the appropriation asked for a torpedo factory, \$155,000, at the torpedo station is passed, either this \$5,000 can be omitted or the other decreased by \$5,000, as by an error the smokestack was included in both. This is absolutely necessary, however.

For reserve torpedoes and appliances, \$500,000.

The Bureau in its last estimates submitted an item of \$100,000 under this head, which was disallowed by the Department.

There exists no reserve of torpedoes, a situation which, as long as it lasts, means that the torpedo fleet is not prepared for war. The Bureau considers that the minimum reserve should be an allowance for the fleet, approximately, of 300 18-inch and 320 21-inch torpedoes. The Bureau recommends, as a step toward this minimum, the manufacture of 100 18-inch torpedoes at the torpedo station.

The reason for this large increase in the estimate is due to the fact that for nearly five years nothing was done in the Navy with regard to torpedoes and appliances. Then the Bureau was suddenly called on to not only care for a most extensive future schedule, but also to cover the omissions of the past, and this within the space of a short time. The fiscal year 1906-7 should see the completion of all ships now authorized except the *New Hampshire*, *North Carolina*, *Montana*, and three scout cruisers, and the *South Carolina* and *Michigan*, and the three destroyers, the modernizing of all older vessels that are worthy of it, and the establishment of sufficient reserves to put this branch on an efficient war basis. This latter must be done in addition to the regular yearly maintenance, which is growing rapidly in proportion to the growth of the fleet. Little beyond experimental work has been done so far. The real expenditure must be between this date and the end of the fiscal year 1907.

The present torpedo situation is as follows:

Needed for present fleet:

5 m. by 21 inches	312
5 m. by 18 inches, submerged	66
5 m. by 18 inches, above water	148
3.55 m. by 18 inches, above water	80
Total needed	606

On hand and ordered :	
5 m. by 21 inches	300
5 m. by 18 inches submerged	60
5 m. by 18 inches above water	150
3.55 m. by 18 inches above water	60
Total	570
Ten years hence we shall need :	
For present vessels	600
For (probably) 10 new battle ships	160
For (probably) 10 new scouts	80
For (probably) 20 new destroyers	120
Total torpedoes	960
It may be taken for granted from experience that none of the torpedoes now in existence or building will last ten years, so making up shortage	36
We shall need to build, torpedoes	996
and a reserve should duplicate this	996
Torpedoes (total required)	1,992

and we should order, therefore, 200 a year and have the facilities for building them.

With the present vessels we lost at least 20 torpedoes a year. The torpedoes we have will not last forever, and we are having torpedo target practice just the same as any other practice.

Mr. BUTLER. You mean that you lose them by exploding them?

Admiral MASON. They are lost by breaking up or sinking or running into the mud, so that they can not be found. These torpedoes are automobile, and if they run 4,000 yards and then happen to strike something or sink at the end of the run it is like hunting for a needle in a haystack to look for them, although we do it with a diver or by dragging or grappling.

The CHAIRMAN. How much do they cost now?

Admiral MASON. We have agreed to pay \$7,100 each for the 300 21-inch contracted for with the E. W. Bliss Company.

The CHAIRMAN. Do you want to enter upon the manufacture of them?

Admiral MASON. Yes, sir.

The CHAIRMAN. To build a plant?

Admiral MASON. We want to build a plant at the torpedo station to have a capacity of about 100 torpedoes a year to be manufactured.

Mr. BUTLER. How much will that plant cost us?

Admiral MASON. The estimates are as follows.

Mr. BUTLER. Just give us the sum total, Admiral.

Admiral MASON. It is \$155,000.

The CHAIRMAN. That is for building and machinery?

Admiral MASON. Complete; yes, sir; for both.

Mr. BUTLER. Then for an expenditure of \$155,000 you can turn out 100 torpedoes a year that would cost how much?

Admiral MASON. It would cost about \$500,000 to manufacture 100 21-inch torpedoes. We will probably have to pay a royalty. That has not been settled yet.

Mr. BUTLER. How much royalty?

Admiral MASON. The inventor asks \$750, but I do not think we should pay him as much; he ought not to be paid more than \$500 at the most.

Mr. BUTLER. Did you estimate how much those torpedoes would cost us, to construct them—those 100 torpedoes?

Admiral MASON. The torpedo station has just sent in an estimate of \$3,500 for each 21-inch torpedo, exclusive of the percentage on the plant, which will be between 30 per cent and 40 per cent. I would say that \$5,000 each would be a fair estimate of the cost per torpedo.

Mr. ROBERTS. Does that include the royalty?

Admiral MASON. No, sir.

Mr. BUTLER. Then we would be saving about \$1,500 to \$2,000 apiece on the torpedoes?

Admiral MASON. Yes; approximately.

Mr. BUTLER. What experience have you had in the manufacture of torpedoes?

Admiral MASON. We have not actually built any torpedoes at the torpedo station, but have had extensive experience in the manufacture of practically all parts, in assembling, and in repairs.

Mr. BUTLER. Your figure of \$5,000 includes the labor and material that you would put in, and the percentage on the plant?

Admiral MASON. Yes.

The CHAIRMAN. You have never made any detailed estimate or report of what might be called the cost of this, have you?

Admiral MASON. The cost of the torpedo itself?

The CHAIRMAN. Yes; or what you could manufacture them for?

Admiral MASON. The torpedo-station estimate was based on the cost of the individual parts.

The CHAIRMAN. What do they cost abroad?

Admiral MASON. We do not know what the 21-inch torpedo costs abroad. For that matter, I don't think they have a 21-inch torpedo abroad. The Whitehead torpedo is in general use abroad.

Mr. ROBERTS. Are these Whitehead torpedoes which are made by Bliss?

Admiral MASON. No. These are the Bliss-Leavitt—entirely different from the Whitehead.

Mr. ROBERTS. Can you buy the Bliss-Leavitt abroad?

Admiral MASON. No.

Mr. ROBERTS. Are they very much more effective weapons?

Admiral MASON. Ours?

Mr. ROBERTS. The Bliss-Leavitt.

Admiral MASON. I think so. The Whitehead torpedo has usually a three or four cylinder Brotherhood engine, worked by compressed air in the cylinder, and the Bliss company has a turbine, which increases the range and speed for the same amount of air, and we have improved on this at the torpedo station by balancing the turbine and increasing the speed and efficiency about 10 per cent more—at least we hope to do it when we get to making them regularly.

Mr. ROBERTS. How much of an increase of speed do they get by the turbines over the Brotherhood engine—that is, how much per diameter?

Admiral MASON. About 3 knots on a range of 3,500 yards. There are reports of a Whitehead equal to the Bliss-Leavitt in performance.

Mr. ROBERTS. I understood you to say that by using the turbines they got increased speed and greater range of action?

Admiral MASON. They get a greater range—that is, the same amount of air will last longer with the turbine. What I mean is that the efficiency of the torpedo is increased.

Mr. ROBERTS. It keeps up its speed and runs farther with the turbine engine than with the Brotherhood engine?

Admiral MASON. Yes. It has less weight, and the air has a more efficient action. The turbine also possesses the advantage of simplicity over the reciprocating engine.

Mr. ROBERTS. By the improvements you have made at the torpedo station you get 10 per cent increase in speed, or range, or both?

Admiral MASON. In range at the same speed and in speed at the same range.

Mr. ROBERTS. What speed do these torpedoes make now? Take the 21-inch; what speed do they make?

Admiral MASON. The contract speed is 26 knots for 3,500 yards. The Bliss company has not been able to do it yet, but obtain 27 knots for 3,000 yards. The other torpedo I spoke of, the 5-meter 18-inch torpedo which we use in armored cruisers and destroyers, the contract speed is 29 knots for 2,000 yards.

Mr. ROBERTS. More speed, but a shorter range?

Admiral MASON. A shorter range, of course. You put on more power and use up the air quicker. The torpedo carries its own motive power.

Mr. ROBERTS. Three thousand yards is nearly a mile and a half.

Admiral MASON. The other torpedo has a speed of 35 knots with a 1,200-yards range.

Mr. ROBERTS. Thirty-five knots at 1,200 yards?

Admiral MASON. Yes.

Mr. ROBERTS. That is over a half a mile.

Mr. KITCHIN. Do you know whether they had at Newport three years and a half ago these various kinds of torpedoes?

Admiral MASON. I am sure that you did not see any of the turbine torpedoes, because the first ones have just been completed.

Mr. KITCHIN. So that this \$7,000 torpedo is a new one?

Admiral MASON. That is a new one.

Mr. ROBERTS. That is the 21-inch?

Admiral MASON. Yes, sir. That contract was just being made when I became chief of the Bureau of Ordnance.

The CHAIRMAN. This whole matter could go over for the year—that is, the matter of building the torpedo factory?

Admiral MASON. No, sir; I think the torpedo question is even more important than the question of reserve ammunition and reserve guns. The torpedo question went over last year and has been passed over year by year for several years. We are now unable to supply torpedoes for even our small number of torpedo vessels, and when I consider the possible consequences I can not describe our condition in regard to torpedoes as anything but deplorable. It is an absolute necessity, if we are to be prepared for war, to get torpedoes, for if our torpedo boats can only make one attack (and all of them can not do that now), they will become useless as fighting machines soon after the opening of war. The effect of procrastination in preparation for war has recently been so conspicuously shown that we who are especially charged with the preparation of the Navy feel that it is our duty to impress that branch of the Government which allots the

money with the danger of such a policy. All our information indicates that other nations are not procrastinating. Great Britain, France, Japan, and Russia have government torpedo factories: Germany has one so much under government control as to be practically a government factory, while the Whitehead Company, at its two factories, in Austria and England, is turning out over 1,000 torpedoes a year, most of which go to these larger powers. Our only source of supply is one company that manufactures torpedoes as a secondary product, with a capacity of 100 per year and whose work is not altogether satisfactory. In my opinion the situation is fraught with danger, and I think that we can not get to work too soon to provide the means to supply our needs.

The CHAIRMAN. Why did you not get this first, then, if it was more important than the reserve-powder business?

Admiral MASON. There are several reasons. First, we did not realize it before the situation was upon us as we do now, and, secondly, we had not developed the torpedo as we have now, and therefore were not prepared to ask to be allowed to go ahead and build torpedoes. The experience of the past year, however, has been convincing that, as far as ingenuity and workmanship are concerned, we can produce good torpedoes, and we ask the Congress to give us the tools to work with.

Mr. ROBERTS. Which, in your judgment, is the more desirable torpedo, the 18-inch torpedo with the higher speed at 2,000-yard range or the 21-inch with its lower speed and 3,500-yard range? Which of those two would you think the more desirable torpedo?

Admiral MASON. We have different uses for the different torpedoes.

The conditions under which the heavy ship will presumably use her torpedoes are essentially different from those under which torpedo craft are designed to work. Battle-ship action will presumably take place in the daytime, torpedo-boat attacks at night. Generally speaking, the difference between battle-ship tactics and torpedo-boat tactics is that the battle ship aims to keep and kill the enemy at a distance and the torpedo boat aims to get as close as possible in order to kill. The torpedo from a battle ship is fired when reasonable accuracy in estimation of the enemy's course and speed obtains so that it is not so necessary to provide means for overcoming the effect of errors in this estimation as it is on a torpedo boat working in the dark where it is necessary to nullify with a high speed unavoidable errors in estimation. The range of visibility also on a good torpedo boat is limited at night to about 1,200 yards, so that would seem a good arbitrary distance to fix for the range of the torpedo and take advantage of the high speed possible.

Mr. ROBERTS. So that you want to continue to have both types of torpedoes?

Admiral MASON. Yes.

Mr. ROBERTS. Can the 21-inch long-range torpedo be keyed up to the higher speed for a short range? You spoke of a range of a thousand yards.

Admiral MASON. That we have not tried, but it is reasonable to suppose that it can.

Mr. ROBERTS. You have not experimented with that?

Admiral MASON. No. That is why we want a torpedo factory of

our own, so that we will not be in the hands of any one company which will not make experiments along certain lines which do not suit their business.

Mr. BUTLER. Who invented this torpedo that you speak of?

Admiral MASON. The Bliss-Leavitt torpedo?

Mr. BUTLER. Yes.

Admiral MASON. That is the invention of Mr. Leavitt. I think he is one of the firm now of the E. W. Bliss Company.

Mr. BUTLER. Is he a civilian?

Admiral MASON. Yes.

Mr. BUTLER. He never belonged to the Navy?

Admiral MASON. No, sir; but he has been in the business ever since he was a young man.

Mr. BUTLER. Our naval officers do not develop any inventions, do they?

Admiral MASON. Yes; they often do. We have an inventor. Lieutenant-Commander Davison, an officer at the torpedo station, who has invented this balanced turbine. This is so valuable that the Bureau has directed him to take out a patent on it, the Government paying all expenses, the patent, of course, being assigned to the Government.

Mr. ROBERTS. Are not some of these appliances for the sighting of guns the inventions of naval officers?

Admiral MASON. All of them are. They are inventions of officers in their line of work.

Mr. ROBERTS. Some of these improvements they are the real inventors of?

Admiral MASON. Yes.

The CHAIRMAN. The next is, "Torpedo station, Newport, Rhode Island, seventy thousand dollars." There is an increase for "new smokestack and flues for boilers" of \$5,000.

Admiral MASON. They have gradually increased at that station. They started in with one boiler, and now, I think, they have four. The original stack is too small for the work. I think my previous statement covers all that.

The CHAIRMAN. Could you not repair it? If you were allowed \$65,000, as you were last year, could you not do that?

Admiral MASON. Not very well.

The CHAIRMAN. The next is, "Arming and equipping naval militia." That is the same as last year?

Admiral MASON. Yes.

Mr. ROBERTS. On that point were there any suggestions made by the naval militia to increase that amount?

Admiral MASON. Not that I know of. This appropriation is handled by the Assistant Secretary. It is only turned over to the Bureau of Ordnance to keep the run of it, that is all. We take cognizance, but we never make an expenditure without direction.

Mr. ROBERTS. You would not know of any suggestions from the naval militia for an increase?

Admiral MASON. I would not. I called Secretary Bonaparte's attention to it, and asked if Mr. Newberry had made any suggestions about increases, and I have received none.

The CHAIRMAN. The next is, "Repairs, Bureau of Ordnance." What is that for?

Admiral MASON. "For necessary repairs to ordnance buildings, magazines, gun parks, boats, lighters, wharves, machinery, and other items of a like character, \$50,000."

For a number of years the Bureau only received \$15,000 per annum under this head, but in 1892 it was increased to \$30,000, and that sum has been appropriated each year since. In the Bureau's last estimates it asked for \$50,000, but the Department reduced it to \$40,000 and Congress appropriated only \$30,000.

Owing to the increase in public work under this Bureau, it is believed to be necessary to have a sufficient fund at its disposal for immediate repairs to buildings, etc., instead of waiting for special appropriations by Congress for the purpose, as has been the case on several occasions, buildings and other public works already damaged being neglected for a long time until money was available for repairs, the delay increasing the cost owing to deterioration. This is especially urgent in the case of magazine buildings injured by explosions. The increase in this appropriation is very necessary.

The CHAIRMAN. The next is, "Miscellaneous, Bureau of Ordnance." You have cut that down \$5,000.

Admiral MASON. "Contingent, Bureau of Ordnance, \$20,000."

This appropriation for a number of years was comparatively small, but as the Navy increased in size the amount asked for and appropriated had to be increased, until the year 1902, when this Bureau received \$75,000, and that sum was appropriated each year until 1906, when, owing to the fact that all expenses for freight were transferred to the Bureau of Supplies and Accounts, this Bureau only required \$25,000. It is now thought that about \$20,000 will suffice, and that amount has been asked for.

This being entirely a contingent appropriation, the Bureau has not attempted to estimate probable expenditures for each separate item.

The CHAIRMAN. Under the next item, "Civil establishment, Bureau of Ordnance," you are asking for an increase in the pay of the ordnance clerk at the New York Navy-Yard; for a new clerk at the naval magazine, Iona Island, New York, at \$1,000, and also for a clerk at the naval magazine, Fort Mifflin, Pa., at \$1,000.

Admiral MASON. The following is a detailed statement explaining the increases and the necessity for the new positions under this appropriation:

CIVIL ESTABLISHMENT.

Navy-yard, New York: Increase of pay of chief clerk from \$1,400 to \$1,500. This position now pays \$1,400 per annum, and the Bureau has asked to have it increased to \$1,500 per annum. The duties are very important, exacting, and constantly increasing. The ordnance department of this yard is the most important one on the Atlantic coast, thousands of dollars' worth of stores being handled and accounted for annually.

The Bureau believes that the salary now paid is inadequate for the services required and should be increased.

Naval magazine, Iona Island, New York: The Bureau has estimated for one clerk at \$1,000 per annum.

There are now employed at this magazine four clerks, one at \$3.52 per diem, and three at \$2.48 per diem.

This magazine is the principal one on the east coast, and it supplies a great deal of the ammunition for vessels fitting out at eastern navy-yards, more than any other single magazine, and the clerical work has been steadily increasing with the growth of the Navy. It has been found that the clerical force is inadequate, and the Bureau has therefore recommended the additional clerk, who is urgently needed.

Naval magazine, Fort Mifflin, Pa.: One clerk at \$1,000 per annum.

The amount of clerical work at this magazine makes it necessary that there should be a clerk permanently attached thereto, the one now employed at \$3.28 per diem being a temporary appointment, and the transfer to the permanent roll would be at a reduction of \$26.64 per annum.

Naval Gun Factory, navy-yard, Washington, D. C.: The Bureau has asked for an increase in the pay of the chief clerk of the Naval Gun Factory from \$1,600 to \$1,800.

The present compensation is inadequate and not proportionate to the responsibilities and duties required of the position. The position requires such competency as would make the incumbent more of a "civilian assistant" to the superintendent than a clerk. The present pay of \$1,600 per annum was established in 1886. The force of employees in the gun factory at that time was 320, office force 7. Force at present 3,864, office force 78, exclusive of draftsmen. The present incumbent was appointed six years ago, and has had no increase since, although recommendations have been made from year to year for an increase to \$2,000 per annum.

Since the superintendent of the gun factory was made commandant of the navy-yard also the responsibility of the chief clerk has materially increased.

The gun factory is a very large establishment, comparable with the Government Printing Office, or the Bureau of Engraving and Printing, and a glance at the salary lists of those places will at once show the inadequate sum paid to the chief clerk of the gun factory.

Navy-yard, Norfolk, Va.: The Bureau has asked for an increase in the pay of the chief clerk of the Ordnance Department from \$1,200 to \$1,300. The Bureau is of the opinion that the compensation now paid is inadequate to the responsibilities of the position and the services rendered. In the past few years the work in the office has increased, at a very conservative estimate, at least 200 per cent, consequently increasing the duties and responsibilities.

Naval magazine, St. Juliens Creek, Virginia: The Bureau has estimated for one clerk at \$1,000 per annum.

The services of a clerk are absolutely necessary to relieve the inspector of ordnance from such work and allow that officer more time for important duties in the field.

The magazine is now a separate institution, employing over 90 men, and during the fiscal year just ended expended in labor over \$1,400,000, involving a vast amount of clerical work and correspondence.

There are now employed at this magazine two clerks at \$2.80 per diem and one at \$2.48 per diem.

Naval magazine, Mare Island, California: The Bureau has estimated for one clerk at \$1,000 per annum.

The clerical force at this magazine is totally inadequate, there being only two clerks, one at \$3.28 and one at \$2.48 per diem, employed. It has been found absolutely impossible with this force to keep up the routine work, which has been accomplished only by the clerks working over hours, after voluntarily taking their work home with them.

This magazine has the preparation and handling of practically all of the ammunition for the west coast, and also for the Asiatic Station, and the Bureau is of the opinion that it should be properly equipped with clerks.

Navy-yard, Puget Sound, Washington: The Bureau has estimated for one clerk at \$1,000 per annum.

The clerical work in the ordnance department of the yard is performed by a special laborer (clerk) who receives \$3.28 per diem.

Additional clerical work will be necessitated by work of clearing, grading, building wharves, magazines, etc., on the 250 acres of land purchased for magazine purposes, as well as for the increasing ordnance work in the navy-yard. It is therefore requested that one clerk, at \$1,000 per annum, be allowed to act as chief clerk in this department, instead of the special laborer at \$3.28 per diem.

Naval station, Philippine Islands: The Bureau has estimated for one clerk at \$1,400 per annum and one at \$1,200 per annum. These two clerks are now carried on the labor roll under appropriation "Ordnance and ordnance stores" at \$4.48 and \$4 per diem, respectively, but it is thought better that they be carried under the regular appropriation "Civil establishment," and as a matter of fact the transfer to that appropriation will be a slight reduction in salary.

The CHAIRMAN. What do you say about these two clerks, at Iona Island and Fort Mifflin?

Admiral MASON. At the navy-yard, New York, there is an increase in the pay of the chief clerk from \$1,400 to \$1,500. This is one of the most important yards that we have and the chief clerk in ordnance is only getting \$1,400. He is an excellent man, and the place is worth \$1,500. We asked for \$1,600, but the Secretary cut it down to \$1,500.

Mr. LOUDENSLAGER. Is that more important than the Washington yard?

Admiral MASON. No, sir. The chief clerk of the Washington navy-yard is the most important one. You will find a recommendation for him also.

The CHAIRMAN. Are these clerks now employed?

Admiral MASON. The clerk at the New York yard is, and also at Fort Mifflin, but Iona Island is a new place. At Fort Mifflin, as stated before, it is a change from per diem to per annum, at a slight reduction in salary, but the transfer would put the man on a better footing.

Mr. ROBERTS. The clerk at Iona Island is not.

The CHAIRMAN. These new clerks, are they employed under the present appropriation?

Admiral MASON. At Iona Island the place asked for is a new one; an increase in force. At magazines we have per diem men, but it is advisable to put them on the civil establishment list when we can.

Mr. ROBERTS. The \$1,000 clerk at the naval magazine, Iona Island, is entirely new?

Admiral MASON. Yes.

Mr. KITCHIN. No; he is really on the per diem basis now.

Admiral MASON. The per diem people will be laid off or taken on as the work goes. They are paid out of appropriation "Ordnance and ordnance stores," or "Armor and armament." But here is a big magazine (Fort Mifflin), and we want to have a clerk there regularly, and that should come under the "Civil establishment."

The CHAIRMAN. You have the same provision in regard to Norfolk, Va., and Mare Island, Cal.?

Admiral MASON. We have asked for an increase of \$100 in the pay of the chief clerk in the ordnance department at the Norfolk Navy-Yard, and for an additional clerk at \$1,000 per annum for the naval magazine, St. Juliens Creek, Virginia, and also for an additional clerk at \$1,000 for the naval magazine at Mare Island, Cal.

The CHAIRMAN. We come now to the navy-yard, Puget Sound, and the naval station at Cavite P. I. Is that the same arrangement there, also? They are per diem men, and would like to get on the annual clerical roll?

Admiral MASON. Yes. There is a special laborer at the navy-yard at Puget Sound who receives \$3.28 per diem. He wants to get on the per annum roll.

In the Philippines, at the naval station, these fellows are on a per diem, and they go onto the annual roll.

Mr. KITCHIN. It is understood when these men go on the regular roll that their per diem employment ceases, and we will save something along the line?

Admiral MASON. We will save something, the transfer to the per annum roll being at a slight reduction of pay. There are some new men, however. They are all necessary.

Mr. ROBERTS. Was there any recommendation in regard to the writer at the Boston Navy-Yard, that he be rated as a clerk? Did any such recommendation come to your Bureau?

Admiral MASON. The Bureau recommended to the Secretary an increase in the pay of the chief clerk at Boston, after the estimates were submitted, but the Secretary did not forward the recommendation to Congress.

The CHAIRMAN. Now we pass to page 104. The first provision is for three brick magazine buildings, each 75 feet by 40 feet, at Dover, N. J.

Admiral MASON. That is under "Public works, Bureau of Ordnance?"

The CHAIRMAN. Yes.

Admiral MASON. I will here submit the following explanation concerning the estimates for public works under the Bureau:

PUBLIC WORKS, BUREAU OF ORDNANCE.

Naval powder depot, Dover, N. J.:	
Three brick magazine buildings, each 75 by 40 feet, to be known as magazines Nos. 6, 7, and 8, with the necessary railroad tracks to connect with the present system.....	\$33,000
Removing brush, clearing grounds, and overhauling railroad tracks and roads.....	3,000
Total	36,000

The Bureau in its last estimates asked for the same amount for these magazines, and for \$3,000 for removing brush, etc., but these items were disallowed by Congress.

While this depot is in generally satisfactory condition, the buildings, etc., above mentioned are an absolute necessity, as it is the main storehouse for the reserve ammunition of the Navy, and its full development is imperative.

Naval magazine, St. Jullians Creek, Virginia:

One brick magazine building, 50 by 100 feet.....	\$14,000
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There being no naval magazine of any capacity south of Norfolk, the importance of this one is evident. The additional magazine building is required to meet the demands for more storage space for powder, the conditions at this time being congested and ammunition stored under temporary sheds without either lock or key.

It is hoped that the addition of this one magazine building will be adequate to meet demands at this magazine for some years.

Fencing newly acquired land.....	\$4,450
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The purchase of additional land out of funds available from an old appropriation has been authorized by the Department, and fencing is necessary in order to secure the protection for which the land was acquired.

This consists of about 1,000 feet corrugated-iron fencing 8 feet high complete—galvanized iron. The remaining part of this magazine is already furnished with this fence as a protection from fire from near-by woods, underbrush, grass, etc., \$3.45 per foot.

Installing electric lights, heaters for filling houses, and motor for reforming plant	\$15,300
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The items above mentioned are necessary for the proper equipment of the magazine, it being considered especially desirable and economical to have reforming plants at the larger magazines. This also includes the necessary wiring and conduits to carry the power from the Norfolk yard to the magazine, a distance of 3 or 4 miles.

Naval proving ground, Indian Head, Maryland.

Shell and mount storehouse, including 20-ton traveling crane and 5-ton auxiliary hoist ----- \$20,500

The necessity for the shell and mount storehouse can not be too strongly urged. Guns, gun carriages, and armor-piercing shell when they arrive are left entirely exposed to the weather, and this exposure may endure for months and even years. In the case of the mechanisms of guns and mounts the result is that they suffer serious and costly deterioration. As regards the shell, quite recently the Bureau was compelled to condemn as scrap 28 6-inch shell, costing \$1,120, that had been so long exposed to sun and frost as to render them useless. The Bureau is informed that it costs from \$25. to \$35 to clean up and put in order at the navy-yard each gun and mount that arrives there after proof. In the course of a year this expense will foot up to a large fraction of the cost of a proper storehouse.

Paving battery ground----- \$13,500

This item was asked for last year, but the Department disallowed it.

Experience in the last three years has more and more demonstrated the necessity and economy of having this work done for a number of reasons, the most important of which is that a large amount of experimental work requires, in the development of powders, the determination of the quantity of smoke, whether unburned powder is blown from the gun, etc., and while every effort was made by wetting down the ground, etc., to attain these results, the experiments were invariably vitiated by the character of the ground in front of the gun, raising a dust which mixed with the smoke and preventing entirely the finding of the grains blown from the gun. Furthermore, it is made ground, of clay and gravel, which is invariably dragged into the bombproof and powder rooms, creating danger and dirt; it is dragged on the battery and causes fouling of mechanisms. The velocity screens are suspended over this portion of the ground and have to be manipulated by the men, which requires them to walk around on this ground and handle cables and wires, wire, and, in all, these features introduce errors in ballistic and experimental work and consequently vitiate the value of the experiment, which naturally is a loss of money.

Expect to use composite blocks.

Laboratory annex----- \$5,000

The laboratory here was designed to accommodate four men working at chemical tests and determinations. The work has grown so that eleven laborers are kept busy in the one building, and the space is totally inadequate. The number of tests and determinations has grown to be very great, very much of the work being due to the fact that the German heat test has been added to the standard K. I. test, but a large part is also due to the great number of indices of powder now in existence that are constantly calling for chemical retest.

The proposed building would be adequate if built of simple wooden framing with corrugated steel sides and roof, and sheathed on the inside with paper and sheet iron. Size of building, 30 by 40 feet, with sides 12 feet high, built with a 7-foot basement for storing samples, etc. The building itself would cost \$3,500; fittings \$1,000, and would be principally devoted to heat tests other than K. I. This building would be erected about 100 yards southeast of the laboratory.

Nitrate of soda storehouse, to replace building destroyed by fire----- \$4,500

This is an all-steel shed with cement floor, built on the principle of a railroad sand shed. To store 1,000,000 pounds of soda the shed would have to be 100 feet long by 20 feet wide inside. The soda can be piled loose on the floor, and, there being absolutely nothing in the building, such as bagging, wood framing, etc., loss by fire will be impossible.

Ether vault and tank----- \$1,380

The original vault was built for the storage of ether incident to a production of powder amounting to 1,000 pounds per day. The plant has grown to a 4,000-pound plant and the two ether tanks are inadequate. With the present arrangement a considerable loss of ether results in the following way:

One tank is used as a receiving tank and the other is used to draw from. The delivery tank is, of course, under air pressure, and when the receiving tank is full we must shift the offices of these two tanks. This entails blowing

off the ether-laden air in the delivering tank before it can be used as a receiver, and as this occurs eight or ten times a month the loss of ether is considerable and costly.

The above estimate calls for a single tank located in a 13-inch walled brick vault, arched over as shown in the plan.

Pyro storehouse-----\$850

To be located on line of narrow-gauge track, midway between pulping house and dehydrating house. A plain, galvanized-iron house, wooden framing, 16 by 30 by 8 feet high. This house is intended to avoid the storing of large amounts of finished pyro in the working room of the dehydrating house, where, if it remains for any length of time it is liable to be contaminated by dust, dirt, etc. It often becomes necessary to accumulate a stock of pyro ahead, in order to make repairs to nitrating plant without stopping whole factory.

Completion of bombproof for velocity battery-----\$900

This work was begun two years ago but given up for want of funds. At present it is in an unfinished state and very unsightly, and practically prevents the use of the velocity battery should it be desirable to take advantage of the new butt on the north side of the valley.

Clearing underbrush, care of grounds, and preservation of permanent way of railroad track-----\$6,500

Naval magazine, Fort Mifflin, Pa.:

(1) Repairs to wharf and railroad track-----\$10,000

Further repairs are needed to the wharf and railroad tracks, which are carried on trestles, and the Bureau believes the sum asked for will be necessary to perform the work properly.

Appropriation "Repairs, ordnance," not sufficient for all of this work.

(2) Installation of drainage system for 5 dwellings, to discharge into river at low-water mark-----\$7,500

It is absolutely necessary for the proper sanitary conditions of the five dwelling houses that a system of drainage to discharge into the river at low-water mark be installed.

(3) Completion of stone road through reservation-----\$2,400

This contemplates the completion of the present road to the junction with Fort Mifflin lane, a distance of about 550 feet. The continuation of this road to the point named is very necessary, in order to facilitate the transportation of heavy freight, the road being very bad, especially in wet and snowy weather.

(4) One building of corrugated steel construction, 18 by 32 feet, for use of workmen-----\$1,200

This is to replace a condemned wooden structure now used by the workmen for shelter and when at meals, no other building being available for the purpose.

This is for the workmen to stow their clothes when preparing for magazine work, for shelter at meals, etc.

(5) Fence to inclose property recently acquired from the War Department-----\$6,000

The acreage at this magazine has recently been extended by the addition of land acquired from the War Department. The main essential in securing this additional land was to protect against trespassers, and especially against the danger of fire, due to such persons. The station is, in a way, isolated, and much of the land is attractive to gunners. The Bureau believes the sum asked for is absolutely necessary.

Estimated cost, about \$0.82 per foot.

Frost wedge lock spring wire fence. Twelve wires with vertical connecting wires each foot and iron posts were necessary on account of gunners, cattle, etc., to continue present fence.

Naval magazine, New England coast:

Toward the erection of the necessary buildings on ground, the purchase of which is now under negotiation, as authorized by the act approved April 27, 1904, for a new naval magazine on the New England coast; also, toward inclosing said grounds, grading and filling in, building roads and walks, improvement of the water front, necessary wharves and cranes, railroad tracks, and rolling stock for local service, fire and water service, and equipment of the establishment----- \$230,000

In the last naval bill, Congress appropriated \$200,000 for completing the purchase of land required for this site and for commencing the development of the property as a naval magazine.

Purchases of the different parcels of land comprising the entire site are now proceeding, and of the total property about 82 acres have been acquired to date.

Building operations will be commenced, as soon as the titles are acquired, and the appropriation of \$230,000, completing the limit of cost prescribed by Congress in the naval bill of June 30, 1905, is necessary to establish the magazine at the earliest practicable date.

Total valuation by Government appraisers-----	\$146,000
Paid to date November 11, 1906-----	24,340

To complete payments-----	121,660
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Number of acres, 720; estimated price per acre, \$202.

Naval magazine, Mare Island, Cal.:

Toward additional magazine and storage facilities, quarters for gunners, fencing, extension of wharf, fire mains, lighting, telephone and railroad systems, and equipment pertaining thereto, on plans to be hereafter determined upon at the naval magazine, Mare Island, Cal ----- \$100,000

The details of the different items required under this head are estimated to be approximately as follows:

Two magazine buildings, 30 by 80 feet-----	\$18,250
On gun-cotton magazine, 25 by 40 feet-----	3,290
One steel storage shed-----	25,000
One paint and oil mixing house-----	2,400
Two additional houses for gunners-----	11,500
Extend north end of wharf 100 by 50 feet, and the north side 216 by 50 feet, erect freight shed on same, and rearrange railroad tracks to suit wharf enlargement-----	26,000
Extension of fire mains to afford protection to all buildings under construction and estimated for-----	2,750
Extend lighting and telephone systems to buildings under construction and estimated for-----	1,500
Extend railroad tracks to new magazine under construction-----	3,850
Extend fence to inclose grounds-----	500
Contingencies-----	4,960

Total-----	100,000
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Owing to the congested condition of the magazines at this station the War and Navy Departments jointly approved the transfer to the Army in April last of a large quantity of brown powder (650,000 pounds) which it was absolutely necessary to dispose of for lack of storage space.

The conditions at this magazine are still very much congested, and the Bureau has included the above sum in its estimates to be used for necessary improvements. These estimates are recommended because of the certainty that this magazine must continue to be for many years the important powder depot on the west coast, at which the greater part of the ammunition for the Asiatic fleet will be held for shipment, and therefore the necessity of providing adequate means of meeting these requirements.

Naval magazine, Iona Island, New York:

(1) Extension to locomotive house to hold No. 2 compressed-air locomotive-----	\$800
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The present locomotive house holds but one locomotive. A second locomotive has been received the past year, for which a shelter is urgently needed.

By building alongside the old locomotive house and by using old material a place to protect the new locomotive can be provided for amount estimated. At present the new locomotive is kept under a temporary shed. Proper housing capacity for the two locomotives in daily use is necessary and should be provided.

- (2) Installing fire protection, standpipes, and nozzles in storehouse
No. 1..... \$1,050

The storehouses are fireproof buildings in which are stored large quantities of material, plus ammunition boxes, paper bags, excelsior, distance pieces, etc. Storehouse No. 2 was fitted with a complete system of standpipes, with dirigible nozzles (without hose), by which every point of the building can be reached by two fire streams by pointing nozzles and opening valves at each nozzle. This makes a very complete method of extinguishing fires at the beginning and is a cheap insurance.

It is desired to equip storehouse No. 1 with the same system.

- (3) Two additional magazine buildings, standard construction, with
grading of sites..... \$30,000

Additional magazine floor space is absolutely needed. There are six magazines, one of which is used exclusively for black powder, and two compartments of another can not be used for explosives on account of overlapping. In the four and one-half magazines available for smokeless powder over 3,000,000 pounds of smokeless powder in bulk and in charges are stored. The buildings are crowded, and much inconvenience is caused by lack of floor space to sort out lots and indices of powder. The natural growth of the Navy will increase the amount, and as time will be required to prepare sites and erect magazines, three additional magazines should be authorized and work commenced as soon as practicable.

- (4) Three filling houses, with steam heating..... \$3,000

The importance of a sufficient number of working places for small parties at a magazine can not be overestimated, as work under existing regulations can only be done away from magazines in filling houses or platforms, by small groups of workmen.

At this magazine there is but one filling house heated with steam, and that is really the only place approaching the regulation temperature of 70°. There are two other filling houses partly heated by electric heaters, which during cold weather are but little above the freezing point. There are two open platforms recently installed and others under construction which are used in summer to good advantage for loading shell and breaking down ammunition. A shipping house is also used when wharf work does not prevent.

In summer, therefore, there are six working places, and in winter one properly heated filling house and two others partly heated, making three in all, available for use at all times. This number of working places is not sufficient for current work in time of peace. In time of war twice or three times that number would be urgently needed.

- (5) One double cottage for gunner and pharmacist..... \$13,000

It is very desirable that the chief gunner should reside at the magazine in order that his services may be available in starting work in the morning, and outside office hours. The Inspector of ordnance now occupies the house intended for chief gunner, as being the only quarters available. This necessitates the chief gunner obtaining quarters outside at the nearest point where quarters are obtainable, at Haverstraw, N. Y., 9 miles from the magazine. Another commissioned officer should reside on the magazine grounds. His services are necessary both for the progress of work and also in case of emergency.

The pharmacist stationed at the magazine takes the place of a medical officer, as there is no physician nearer than several miles. As his services are urgently needed in case of accidents which may happen at any hour, he should be furnished quarters on Iona Island.

As there are no quarters for his use, he is at present required to occupy one-half of one of the cottages built for employees.

Proper quarters for pharmacist should be provided. The site at Iona Island is a thinly settled part of New York State, away from villages or towns, making it extraordinarily inconvenient for officers on duty unless quarters are provided.

(6) Extension of railroad tracks and new sidings----- \$6, 000

Buildings, magazines, and filling houses are now located directly on main tracks, with but few sidings. Cars placed for work near these buildings block the tracks, necessitating much loss of time both to working parties and in hauling cars.

There are parts of the island not utilized now which could be made of great value by extending railroad tracks away from crowded portion. In case new magazines and new filling houses are built, the extensions of the railroad track would be valuable both for construction purposes and for current use after buildings are erected.

The additional railway tracks should be laid in advance of building operations to get the full benefit.

(7) Building for marine quarters and guardhouse----- \$10, 000

A building and a guardhouse for a marine guard of 24 to 36 privates should be erected near the main gate. The present marine guard of 11 men, sufficient to maintain two posts, a sentry at the gate, and a patrol, as there are no other quarters occupy one-half of cottage No. 4, designed for employees. They are much crowded and should have a properly designed building.

(8) One heat-test house, plan 20147/1----- \$1, 000

A small building, heated by steam, for drying samples of smokeless powder for heat test, arranged for use as a testing room and drying room, should be provided, as handling the large number of samples required to be tested should be performed in an isolated building. At present this work is done in the upper story or garret of the office building, and the drying of samples is carried on in the dynamo room as the only place available. A separate house for this work is very necessary where so much depends on the proper testing of the powder.

(9) Water-closets and wash rooms at power house----- \$4. 000

There are no water-closets or wash rooms at this magazine for the use of workmen, except several small portable earth closets installed within the last year.

A proper water-closet and wash room should be installed at or near the power house, where the 125 workmen assemble for dinner and muster. In the interests of health and decency.

(10) Extending sewers----- \$500

Two sewers emptying on the flat in cove abreast the power house should be extended 140 feet to edge of channel and the flat filled in gradually by using it as a dump. At present the flat at low water is offensive and unsanitary.

(11) Primer house----- \$600

A small primer house of corrugated iron is much needed to stow large quantities of primers and fuses kept in stock. There is no primer house at present, except an old water-closet, used for the purpose in the absence of any other building.

Naval magazine, Puget Sound.

For necessary buildings; water and fire system; fencing, clearing, and grading; railroad tracks, and equipment of the naval magazine.

Puget Sound, on ground recently acquired for the purpose----- \$153, 000

The following items are embraced in this estimate:

One gun-cotton house-----	\$2, 400
Four magazine buildings-----	28, 000
One shell house-----	17, 000
One magazine for suspected powder-----	3, 800
One gunners' quarters-----	4, 400
One stable-----	1, 500
One house for watchman-----	4, 500
Two filling houses-----	1, 600
One administration building-----	9, 000
One fuse house-----	2, 400
One primer house-----	2, 400
One storehouse-----	19, 000
One workshop-----	3, 000

One reservoir and tank.....	\$24, 000
Railroad system.....	15, 000
Water and fire system.....	5, 000
Clearing and grading.....	10, 000
Total	153, 000

During the fiscal year a survey of this magazine site, purchased under the appropriation carried in the naval bill of July 1, 1902, has been made and topographical map completed; also plan looking to the laying out and development of the grounds, and specifications and plans for wharf and two magazine buildings have been made and the contract let for the wharf. Steps have been taken for clearing and grading such portions of the site as are necessary and can be done within the limits of the appropriation.

The necessity for increased magazine facilities on the Pacific coast of the United States is urgent, inasmuch as with the accumulation of a reserve supply of ammunition it will be a matter of policy to keep in store on the west coast such a supply as would be expected to meet the demands of a fleet operating in the Pacific Ocean. The storage facilities on the west coast at present are inadequate at Mare Island, and that is the only magazine on the coast. The appropriation carried in the naval bill referred to (July 1, 1902) is barely more than sufficient to provide for the purchase of land and portion of the clearing and grading, and the necessary wharf at Ostrich Bay, and the amount asked for is urgently recommended to be favorably considered.

Naval magazine, Philippine Islands.

For further extension of magazine at Philippine Islands, including clearing and grading, extension of railroad track, new buildings, fire system and necessary equipment..... **\$40, 000**

During the last fiscal year work at this naval magazine, under the appropriation of July 1, 1904, has been progressing very satisfactorily. The necessary timber and pile pier 100 feet long, 12 feet wide at inside end and 24 feet at outer end, has been completed, and an industrial railway track from the pier end through graded portion of the magazine site has been laid.

Two magazine buildings and one shell house are nearing completion, and the mason work on another shell house has been completed to the height of the eave, awaiting the structural steel to be shipped from the United States.

Material for custodian's quarters has been ordered and for the most part delivered.

Out of the appropriation of \$50,000 carried by the act of July 1, 1904, it is expected to complete at this station two magazine buildings, two shell houses, two filling houses, one storehouse for high explosives, custodian's quarters, and quarters for necessary watchmen; also the pier and installation of the railway track. The buildings thus provided will not be sufficient for the purposes of a naval magazine, if the magazine at Cavite is abandoned, which, under the Department's present instructions, is the condition contemplated, and the Bureau has therefore included the above item of \$40,000 for the purpose of further extending the magazine at Olongapo, including clearing, grading, extension of railway tracks, new buildings, fire system, etc.

With this additional sum this magazine can be put on an efficient footing for immediate necessities.

Naval magazine, Guantanamo:

For necessary buildings and wharf, clearing, grading, and equipment of the naval magazine, Guantanamo..... **\$52, 500**

This estimate embraces approximately the following items:

Two magazine buildings.....	\$15, 000
One shellhouse.....	17, 000
Quarters for gunner.....	6, 000
Wharf, clearing, and grading.....	12, 000
Contingencies.....	2, 500

Total..... 52, 500

At this naval station there is as yet no ordnance department, and no work under the cognizance of this Bureau has been done there during the past fiscal year. The experience of the past fiscal year, however, has demonstrated the need of the items asked for in the Bureau's estimates.

Torpedo station, Newport, R. I.:

(1) Rebuild the oldest section of sea wall.....	\$5,000
(2) Ferry slips at torpedo station and Government landing.....	7,500
(3) Torpedo factory, with equipment of machine tools, engine, boilers, and necessary equipment	155,000
Total	167,500

Item 1: This section of the sea wall is undermined and the top of the wall is pushed over toward the sea. The wall is in such a condition that it is beyond the ability of the station force to repair permanently. Serious damage is inevitable unless the wall is rebuilt. This is a continuation of repairs to the sea wall.

Item 2: This is to provide an entrance for the ferryboat which has been authorized by the Department, and plans for which are now under consideration.

Item 3. This is to provide a Government factory whereby the Department will be placed in a more independent position than it at present occupies in regard to the manufacture of torpedoes. At present the Government is practically dependent on one firm alone in this country for its torpedoes—an unfortunate condition, because, under the circumstances, a firm which is the sole manufacturer of an article is in a position to dictate its own terms to the Government as well as to an individual. This inevitably causes delay in the delivery, and has a decided tendency to increase the price of the manufactured article.

Such a plant as the one recommended would not necessarily supersede the business of the private firm, but its output would materially help to supply the demand.

The estimated yearly output of this factory would be 50 torpedoes 5 m. 45 cm. and 40 torpedoes 5 m. 21 inches of latest improved type, or the modification of 300 older torpedoes 5 m. 45 cm. Mark I torpedoes.

The factory would employ about 175 skilled mechanics. The possession of a torpedo factory by the Government would be a constant spur and incentive to the private firm or firms and there could be no doubt that the character of the work of the firm or firms would be greatly improved. A control by the Government on the cost of torpedoes could be had, etc.

This is considered as absolutely necessary.

Mr. LOUDENSLAGER. You are asking for about three-quarters of a million dollars increase over and above last year?

Admiral MASON. The reasons for it are all given here.

The CHAIRMAN. Could you make any suggestions as to cutting down?

Admiral MASON. No; I think everything submitted is very necessary.

The CHAIRMAN. Of course we are only appropriating for one year. Take the New England magazine. Would we need all of that for one year?

Admiral MASON. I should say for the coming year. Plans are being prepared now, and my idea is (the need of this magazine is so great) to enter as soon as the bill is passed into contracts for the grading and building.

The CHAIRMAN. You have not got those plans yet, have you?

Admiral MASON. No; but they can doubtless be prepared before the purchase of the property is completed.

The CHAIRMAN. You already have \$200,000.

Admiral MASON. The greater part of that—about \$110,000 to \$115,000, after the purchases are completed.

The CHAIRMAN. We want to give you the money as fast as you need it, but we do not want to give it to you any faster than you do need it.

Admiral MASON. I think we can use it all. I am going to Boston in the next two or three days, and I will be able to put in my testi-

mony, anyway, the information as to the actual necessity. You gave us \$200,000?

The CHAIRMAN. Yes.

Admiral MASON. The total amount to complete payments out of this appropriation will be about \$82,000, on Government appraisements, but some of these claims may be settled out of court at a slight increase of cost above the estimates. The total valuation of the Government appraisers was \$146,000, whereas the original valuation was about half of that.

Mr. ROBERTS. It was less than that. The board appointed, if you will recall, sent in a report to us that the land was worth about \$35,000, and could be, in their judgment, bought for \$70,000.

Admiral MASON. We have gone into the courts now for it. We have options on about one-fifth.

Mr. ROBERTS. These prices we are paying would be under condemnation proceedings?

Admiral MASON. Under condemnation proceedings where necessary; otherwise by regular purchase. There are about 720 acres, at an approximate cost of \$202 an acre. That leaves us about 80 acres to start with. I will put in my hearing, or, if not, communicate immediately with you as to what we can expend.

NOTE.—Having since visited the Boston Navy-Yard and looked over the preliminary plans now under construction, I am of the opinion that this item of \$230,000 can be reduced to \$130,000 this year, provided that the appropriation of the remaining \$100,000 can be counted on for the next fiscal year.

Contracts could be let for the whole amount as soon as this bill is passed, but it is not absolutely necessary to do so. The work, however, is being laid out on the assumption that the entire sum of \$230,000 will be appropriated by the next session of Congress.

The CHAIRMAN. Take this naval magazine at Mare Island. I will just speak about these large items now. This is \$100,000.

Admiral MASON. That is itemized in this way. The total of the different items required under this head is estimated to be approximately as follows: "Two magazine buildings, \$18,250."

The CHAIRMAN. Yes; but I want to ask you on the general question, do you regard that as important this year?

Admiral MASON. Yes, sir. We are snowed up as regards stowage of ammunition, and the reserve we are accumulating necessitates more storage room.

There is one thing more, appropriation "Increase of the Navy." This is on page 192, "Armor and armament, nine million dollars." Congress appropriated under this head for the current fiscal year the sum of \$15,145,000. The balance on hand October 1 was \$9,540,611.87. A careful examination of the progress of work on vessels now under construction and authorized leads the Bureau to believe that the above sum will be required for the fiscal year 1907-8.

This estimate contemplates the expenditure of \$6,000,000 on vessels now under construction and \$3,000,000 toward the armor and armament of the battle ship authorized by the act of June 29, 1906.

The Bureau asked Congress for a deficiency of \$2,000,000 under "Armor and armament" at its last session, but this was not allowed. The Bureau was therefore obliged to cover this deficiency by drawing on funds for the current fiscal year, which amounted in round num-

bers to \$1,800,000 and reduced the working appropriation for the year to \$13,345,000.

It is now thought that this deficiency will probably not exceed the sum of \$1,000,000 at the end of the current fiscal year, and this sum the Bureau will ask for in one of the deficiency bills should circumstances so demand.

The above-mentioned deficiency is not really a deficiency, because that amount of ordnance material is already on hand under the appropriation "Armor and armament." That is, we have paid for it, and the apparent deficiency is not a deficiency because we have not money to pay for more. When the time comes we can wind up this appropriation, but now it must be a continuing one.

The above estimate is exclusive of ammunition and other supplies for new ships heretofore appropriated under "Armor and armament," and for the fiscal year 1907-8 the sum of \$750,000 will be required. This has been estimated for under "Ordnance and ordnance stores," and if not allowed under that head should be appropriated under "Armor and armament" in addition to the \$9,000,000 asked for. If allowed, it is requested that a clause be inserted providing that ammunition and other supplies already on hand, or contracted for under appropriation "Armor and armament," shall be thereby transferred to appropriation "Ordnance and ordnance stores" the same as if purchased under that appropriation.

Mr. KITCHIN. I notice you strike out the provisions of the proviso in the last bill under this item.

Admiral MASON. About shell?

Mr. KITCHIN. No; the provision that no part of this appropriation shall be expended for armor for vessels except upon contracts for such armor when awarded by the Secretary of the Navy, to the lowest responsible bidder, having in view the best results and most expeditious delivery.

Admiral MASON. I have no knowledge of that. I had nothing to do with the preparation of this bill.

Mr. KITCHIN. I wonder who can explain that to us. I want some information about that last letting of the contract.

The CHAIRMAN. It was put in by the House.

Mr. ROBERTS. Who struck that out?

The CHAIRMAN. These estimates come from the Department in this shape, without the proviso. The basis of our bill here is last year's law, and we put in all of last year's law, and also the estimates of the Department, and put them together, and those things that the Department does not send up here but which were in last year's law are put in the bill with a line drawn through.

Mr. KITCHIN. But does not the Department take last year's law?

The CHAIRMAN. No; they never do it. I wish you would put in your hearing, Admiral, a statement of that whole last armor contract, what the bids were, and all about it; what the conclusion of the Department was, and to whom the contract was let and how much was let to each one, and the reasons why the Department took the position that it did. We want that all put in the hearings. It will very likely be called for on the floor.

(The information asked for is hereto appended, marked "B.")

Admiral MASON. You have the report of the armor board now, have you not?

The CHAIRMAN. No; not yet. We would like to have that, also. Admiral MASON. It is in the Printer's hands now, and should be ready very soon. It is a House document. I don't know the number, as the copy is with the Printer.

(At 1.45 o'clock p. m. the committee adjourned until to-morrow. Wednesday, December 12, 1906, at 10.30 o'clock a. m.)

APPENDIX A.—Table showing number and prices of armor-piercing shell of 5-inch caliber and above, purchased on requisition for the years 1903-1906, inclusive.

Year.	Requisition No.	Company.	Subject.	Price
1903	166	Crucible	600 10-inch	\$105.00
	167	Carpenter	600 12-inch	158.00
	167	Carpenter	1,000 8-inch	62.50
	168	Midvale	1,000 5-inch	21.83
	170	Firth-Sterling	200 8-inch	40.00
	170	Firth-Sterling	200 12-inch	150.00
	179	Bethlehem	2,000 6-inch	25.00
	180	Carpenter	2,000 7-inch	38.75
	261	Firth-Sterling	2,000 8-inch	62.50
	58	.....do	2,000 8-inch	62.50
1904	152	.....do	1,250 8-inch	55.00
	186	.....do	750 8-inch	55.00
	189	.....do	50 12-inch	160.00
	189	.....do	7,000 6-inch	25.00
	226	Bethlehem	1,000 6-inch	30.00
	227	Firth-Sterling	1,000 7-inch	45.00
	23	.....do	5 12-inch	170.00
	77	.....do	300 10-inch	112.00
	77	.....do	300 13-inch	220.00
	77	.....do	100 12-inch	190.00
1905	197	.....do	1,000 7-inch	45.00
	197	.....do	1,000 5-inch	22.00
	254	.....do	1,000 7-inch	45.00
	257	.....do	500 5-inch	22.00
	69	.....do	1,000 6-inch	25.00
	132	.....do	350 7-inch	45.00
	138	.....do	1,000 7-inch	45.00
1906	138	.....do	1,000 8-inch	62.50
	252	.....do	200 13-inch	220.00

Contracts placed since July 1, 1906.

[After advertisement.]

Contract now with company for signature:

Firth-Sterling—			
1,000 6-inch			\$25. 00
1,000 7-inch			45. 00
1,000 8-inch			62. 50
1,000 12-inch			190. 00

The following is an extract from the schedule of proposals for furnishing armor-piercing and target shell, which were opened in the Bureau of Ordnance at noon, December 19, 1906:

Armor-piercing shell—Price per shell.

	1,000 6-inch.	1,000 7-inch.	1,000 8-inch.	1,000 12-inch.
Firth-Sterling Steel Co.	\$25. 00	\$45. 00	\$62. 50	\$190. 00
American and British Manufacturing Co.	(a)	(a)	(a)	(a)
Bethlehem Steel Co.	32. 00	62. 50	91. 50	318. 00
Midvale Steel Co.	37 50	64. 00	100. 00	292. 00

a No bid.

In each case the Firth-Sterling Steel Company offered the lowest price and shortest time for delivery.

Target shell—Price per shell.

	2 000 5-inch.	5,000 6-inch.	1 000 7-inch.	2,000 8-inch.	1,000 12-inch.
Firth-Sterling Steel Co.....	(a)	\$10.45	\$15.45	\$20.90	\$57.90
American and British Manufacturing Co.....	\$6.62	11.95	21.07	(a)	(a)
Bethlehem Steel Co.....	9.90	18.50	33.00	52.00	96.00
Midvale Steel Co.....	11.25	23.00	40.00	48.00	97.00

^a No bid.

In each case, except that of the 5-inch target shell, the Firth-Sterling Steel Company offered the lowest price and shortest time for delivery. In the case of the 5-inch target shell the American and British Manufacturing Company, of Bridgeport, Conn., offered the lowest price and shortest time for delivery.

APPENDIX B.—Statement regarding the award of the last armor contracts.

Following the Navy Department's advertisement dated May 21, 1906, proposals were opened at noon, July 10, 1906, for furnishing about 7,388 tons of armor plates and appurtenances for vessels authorized by the act of Congress approved March 3, 1905, viz, battle ships No. 26 (*South Carolina*) and No. 27 (*Michigan*).

Bids were submitted by the three firms possessing armor plants as follows:

BETHLEHEM STEEL COMPANY.

Armor for the vessels authorized by the act of Congress approved March 3, 1905, viz, the battle ships South Carolina and Michigan.

Vessel.	Class A armor.	Price per ton.	Total.	Class B armor.	Price per ton.	Total.
	<i>Tons.</i>			<i>Tons.</i>		
For one battle ship No. 26.....	3,512	\$381	\$1,338,072	5	\$381	\$1,905
For one battle ship No. 27.....	3,512	381	1,338,072	5	381	1,905
Total.....	7,024		2,676,144	10		3,810

Vessel.	Class C armor.	Price per ton.	Total.	Bolts and nuts.	Price per ton.	Total.	Aggre- gate.
	<i>Tons.</i>			<i>Tons.</i>			
For one battle ship No. 26.....	147	\$831	\$56,007	30	\$360	\$10,800	\$1,406,784
For one battle ship No. 27.....	147	381	56,007	30	360	10,800	1,406,784
Total.....	294		112,014	60		21,600	2,813,568

Aggregate bid for armor for battle ships Nos. 26 and 27.

	Total tons.	Aggregate.
Armor.....	7,328	\$2,791,968
Bolts and nuts.....	60	21,600
Total.....	7,388	2,813,568

Deliveries of above armor will be commenced within five and one-half months after receipt of preliminary drawings, and continue at the rate of 600 tons per month thereafter.

CARNEGIE STEEL COMPANY.

Armor for the vessels authorized by the act of Congress approved March 3, 1905, viz, the battle ships South Carolina and Michigan.

Vessel.	Class A armor.	Price per ton.	Total.	Class B armor.	Price per ton.	Total.
	<i>Tons.</i>			<i>Tons.</i>		
For one battle ship No. 26.....	3,512	\$370	\$1,299,440	5	\$370	\$1,850
For one battle ship No. 27.....	3,512	370	1,299,440	5	370	1,850
Total.....	7,024		2,598,880	10		3,700

Vessel.	Class C armor.	Price per ton.	Total.	Bolts and nuts.	Price per ton.	Total.	Aggregate.
	<i>Tons.</i>			<i>Tons.</i>			
For one battle ship No. 26.....	147	\$370	\$54,890	30	\$370	\$11,100	\$1,366,780
For one battle ship No. 27.....	147	370	54,390	30	370	11,100	1,366,780
Total.....	294		108,780	60		22,200	2,733,560

Aggregate bid for armor for battle ships Nos. 26 and 27.

	Total tons.	Aggregate.
Armor.....	7,328	\$2,711,360
Bolts and nuts.....	60	22,200
Total.....	7,388	2,733,560

Deliveries of above armor will be commenced within six months after receipt of preliminary plans and continue at the rate of 600 tons per month thereafter.

MIDVALE STEEL COMPANY.

Armor for the vessels authorized by the act of Congress approved March 3, 1905, viz, the battle ships South Carolina and Michigan.

Vessel.	Class A armor.	Price per ton.	Total.	Class B armor.	Price per ton.	Total.
	<i>Tons.</i>			<i>Tons.</i>		
For one battle ship No. 26.....	3,512	\$346.00	\$1,215,152	5	\$345.00	\$1,725
For one battle ship No. 27.....	3,512	346.00	1,215,152	5	345.00	1,725
Total.....	7,024		2,430,304	10		3,450

Vessel.	Class C armor.	Price per ton.	Total.	Bolts and nuts.	Price per ton.	Total.	Aggregate.
	<i>Tons.</i>			<i>Tons.</i>			
For one battle ship No. 26.....	147	\$344.00	\$50,568	30	\$343.00	\$10,290	\$1,277,735
For one battle ship No. 27.....	147	344.00	50,568	30	343.00	10,290	1,277,735
Total.....	294		101,136	60		20,580	2,555,470

Aggregate bid for armor for battle ships Nos. 26 and 27.

	Total tons.	Aggregate.
Armor.....	7,328	\$2,534,890
Bolts and nuts.....	60	20,580
Total.....	7,388	2,555,470

Deliveries of above armor will be commenced on or before the dates required by the circular and specifications dated May 21, 1906, page 19, paragraph 115, and continue at the rate of 600 tons per month thereafter.

The Midvale Steel Company added to its bid a statement offering to undertake to advance the dates and increase the amounts of deliveries.

These bids were referred to the Bureau of Ordnance by the following indorsements:

"Respectfully referred to the Bureau of Ordnance with the request that a schedule of the within bids be prepared and returned with recommendation as to award of contract.

"By direction of the Secretary.

"S. W. B. DIEHL,
"Judge-Advocate-General."

At that time there remained to be delivered by each of these three companies, under previous contracts, the following approximate amounts of armor:

Contract dated.	Bethlehem.	Carnegie.	Midvale.
	Tons.	Tons.	Tons.
December 15, 1903			2,979
December 31, 1903	175		
January 9, 1904		165	
April 1, 1905	1,225		
April 3, 1905		695	
April 5, 1906			1,000
Total	1,400	860	3,979

In compliance with the Department's indorsement, the Bureau of Ordnance submitted the following recommendation:

[Second indorsement.]

JULY 13, 1906.

1. Respectfully returned to the Navy Department, together with schedule and all papers.

2. In submitting its recommendation as to the award of this contract this Bureau desires to invite the Department's attention to the following points for its consideration:

3. The three bidders—Bethlehem, Carnegie, and Midvale Steel companies—represent the only armor-manufacturing plants in the country. The Bethlehem and Carnegie companies commenced the manufacture at the instance of the Government under contracts in 1887 and 1890, respectively, and the Midvale Company entered the field in competition, being awarded its first contract in December, 1903.

4. The bids of the Bethlehem and Carnegie companies are higher than those of the lowest bidder—the Midvale Steel Company. The status of unfinished armor contracts existing at date with these three companies is briefly as follows:

5. The Bethlehem Steel Company has to supply, under existing contracts, about 1,400 tons, of which 175 tons is to be delivered under contract of December 31, 1903, and 1,225 tons under contract of April 1, 1905. This armor will probably be all delivered before the end of this year.

6. The Carnegie Steel Company has to supply, under existing contracts, about 860 tons, of which 165 tons is to be delivered under contract of January 9, 1904, and 695 tons under contract of April 3, 1905. This armor will probably be all delivered in the next few months.

7. The Midvale Steel Company, under contract of December 15, 1903, is required to furnish 5,566 tons of armor, and under the contract of April 5, 1905, 998 tons of armor. Allowing 3 per cent additional required for ballistic plates, the total amount of armor being supplied by this company under existing contracts amounts to about 6,760 tons. Up to date they have delivered 2,844 tons.

8. The last of the remaining 3,916 tons of armor is required to be delivered not later than April 30, 1907. Although embarrassment is being caused the Bureau by delayed deliveries and it seems possible that the armor makers may be penalized, under the terms of the contracts, for delayed deliveries of certain portions of this armor, yet the Bureau is of the opinion that these contracts

will have been completed by the last date mentioned, April 30, 1907, the execution of which will necessitate deliveries of armor at the rate of 405 tons per month.

9. The greatest amount of armor this company has delivered in one month (April, 1906) is 622 tons. The highest average rate for three consecutive months (February, March, and April, 1906) was 488 tons per month, and the average per month for the four months (February, March, April, and May, 1906) was 414 tons.

10. The "Circular and specifications concerning armor plate," governing the bids for this armor for the *Michigan* and *South Carolina*, require deliveries of armor to commence nine months after receipt, by the armor makers, of the forging plans. Assuming that these plans are supplied them September 1, 1906, the first deliveries of armor should be made June 1, 1907, and continue thereafter at a monthly rate of 600 tons. It is probable, however, that the shipbuilders will require about 260 tons to be delivered about May 1, 1907.

11. From a consideration of the present status of existing contracts, detailed above, all three companies should be ready to begin deliveries at the time desired.

12. In the act of Congress making appropriations for armor and armament for the fiscal year ending June 30, 1907, it is provided "that no part of this appropriation shall be expended for armor for vessels except upon contracts for such armor when awarded by the Secretary of the Navy, to the lowest responsible bidder, having in view the best results and most expeditious delivery."

13. The Bureau is of the opinion that if the contract for all of this armor is awarded to one company, which will result necessarily in the complete closing down of the other two large armor-making plants, that "the best results" will not be obtained. The workmen skilled in this kind of work would become scattered; such of the plant as could be utilized for commercial work would be diverted to it; the armor plants would probably lose their identity as such, and it seems most probable that the companies would abolish them as such and not be willing in the future to undertake to collect their skilled force, refit the plant, and take up anew this special kind of work. The probable result of such enforced closing down of two armor plants would be to leave the country with only one armor plant to supply all the armor that may be required in the future. This, in the Bureau's opinion, is a condition to be avoided, if possible. Not only does the existence of several armor plants increase the resources, but they also encourage competition, as these bids show.

14. Although the capacity of one plant would seem ample for the present needs of the Navy, yet the chances of unlooked-for delays must be considered. The breaking down of a press or other important piece of machinery, the failure of one or more "groups" of armor to pass ballistic or other tests, a serious fire or other accident at the works, possible strikes, etc., any such conditions might cause delays in armor deliveries that would cause embarrassment at critical times or involve charges for delay on the part of the shipbuilders for nondelivery of material.

15. For these reasons, "having in view the best results and most expeditious delivery," the Bureau recommends that 50 per cent of the total amount of armor required be awarded to the Midvale Steel Company and that 25 per cent be awarded to each of the other companies, the Bethlehem Steel Company and the Carnegie Steel Company, provided the latter companies agree to furnish this armor at the price given by the lowest bidder, or, in other words, that the Midvale Steel Company be awarded the contract for supplying all the armor, etc., for one battle ship, aggregating about 3,694 tons, and that each of the other two companies, the Bethlehem Steel Company and the Carnegie Steel Company, be awarded one-half of the armor for the other ship, amounting to about 1,847 tons, provided they agree to accept the price of the lowest bidder.

N. E. MASON,
Chief of Bureau of Ordnance.

This recommendation met with the approval of the Navy Department, and the contracts for armor were so awarded, approximately 3,694 tons being awarded the Midvale Steel Company and 1,847 tons each to the Bethlehem Steel Company and Carnegie Steel Company.

At present date the Bethlehem and Carnegie Steel companies have completed the deliveries of all armor due under previous contracts except a few "shutter" plates, delayed awaiting templates to be furnished them, which delay is beyond

their control, and a few sighting hoods. Both firms have commenced the manufacture of the armor awarded them by the contracts of last August.

There remains at present date to be delivered by the Midvale Steel Company approximately 1,250 tons, under contract of December 15, 1903, and 1,000 tons (all) under contract of April 5, 1905. The Bureau has as yet received no notice that the manufacture of armor under the contract of last August has begun.

The possible imposition of penalties suggested above in paragraph 8 of Bureau of Ordnance indorsement has not been necessary.

The Midvale Steel Company has been granted, under the terms of its contracts and since the award of the contracts last August, forty-eight days' extension of time for required deliveries of armor due under its previous contracts as a reasonable consideration for unavoidable delays due to the breaking down of certain machines. This illustrates such a contingency as was considered by the Bureau of Ordnance when it made its recommendation for the award of the armor contracts, "having in view the best results and most expeditious delivery."

APPENDIX C.

JOINT ARMY AND NAVY BOARD ON SMOKELESS POWDER. BUREAU OF ORDNANCE, NAVY DEPARTMENT, *Washington, D. C., September 26, 1906.*

SIR: 1. Following an earlier report, dated August 1, 1906, forwarding revised specifications for the manufacture of smokeless powder, the Joint Army and Navy Board on Smokeless Powder submits the following report, dealing with the price which should be paid private manufacturers for smokeless powder for cannon to be made for the Government in accordance with the specifications above referred to. In arriving at the price hereinafter recommended the Board carefully considered all data which it could obtain, including the actual cost of manufacturing powder at the Naval Powder Factory at Indian Head, Md., and statements and information presented by the powder makers who were afforded an opportunity to appear before it to discuss the subject involved, to present their views as to the cost of manufacture, and to answer the questions of the board.

2. The price charged for smokeless powder for some years past has been 70 cents per pound, exclusive of the cost of the alcohol used, which heretofore has been supplied by the Government. The actual price paid, including the cost of the alcohol, has thus been approximately 74 cents per pound. Taking the figures furnished by the Naval Powder Factory for the cost of raw material and labor and accepting its estimate as to maintenance, depreciation, and fire loss, the cost of a pound of powder, based upon an output of 1,000,000 pounds, which is approximately the yearly output of that factory working night and day, is 54.6 cents. By adding the interest on capital invested in grounds, buildings, and machinery, the interest on capital invested at any time in material on hand, powder in process of manufacture, and powder in dry houses, taxes, administrative expenses not considered in the data furnished from the Naval Gun Factory, profit, etc., the price per pound is increased from 54.6 cents to approximately 69 cents. In the judgment of the Board it is probable that the experience of the private manufacturers enables them to cheapen the cost of production at certain points and that the actual cost of their powder is somewhat less than that of the Naval Powder Factory. Such advantage as they may gain here, however, is probably offset by expenses to which they are subject for pensions in the case of employees killed or injured in their works, by damages exacted by neighboring property owners, and by other expenses necessarily incident to the manufacture of powder.

From an economical standpoint a Government powder factory has advantages, some of which are the following: Smaller salaries for administrative officers, plant probably worked to full capacity while those of existing private manufacturers have been generally worked much below their maximum capacity as a result of limited orders. These advantages are, however, offset, in a measure, by a labor day of eight hours, while the labor day of private manufacturers is ten hours, and by the expense incident to a large number of holidays during the year for which the Government employees are given full pay.

It is considered probable also that private manufacturers have an advantage over the Government in the purchase of raw materials; but this subject is a

difficult one to investigate, and the board has no accurate information concerning it.

Based upon all data at its disposal, the board is of the opinion that a price of 69 cents per pound is a fair one to be paid private manufacturers for smokeless powder, the manufacturers to furnish their own alcohol. The board considers that the arrangement under which the Government has heretofore supplied the alcohol to the manufacturers has many disadvantages, and recommends that in future it be abandoned and that manufacturers be required to supply their own alcohol, which may be removed from bond free of duty under proper regulations of the Treasury Department.

3. In view of the more economical operation of the plants engaged in the production of smokeless powders for cannon when operated at approximately their full capacity, it is the opinion of the board that the above price of 69 cents per pound should be considered as applying only to the existing plants when the orders received from the Government are not in the aggregate sufficient to enable them to operate to their full capacity. The board therefore recommends that when the aggregate of the orders of the Government to the four following powder plants, the only ones now equipped to manufacture smokeless powder for the Government, viz, The E. I. Du Pont Company, The International Smokeless Powder and Chemical Company, The Laflin & Rand Powder Company, and the California Powder Works, exceeds 4,000,000 pounds, all powders ordered or contracted for in any given year in excess of 4,000,000 pounds be paid for at price of 65 cents per pound, the manufacturers to furnish the alcohol.

4. A duplicate of this report has been forwarded to the Chief of Ordnance, United States Army.

Very respectfully,

AUSTIN M. KNIGHT.

Commander, U. S. Navy, President of Board.

A. C. DIEFFENBACH,

Commander, U. S. Navy, (Retired).

B. W. DUNN,

Major, Ordnance Department, U. S. Army.

C. B. WHEELER,

Major, Ordnance Department, U. S. Army.

JOHN HALLIGAN, Jr.,

Lieutenant, U. S. Navy.

The CHIEF OF BUREAU OF ORDNANCE,

Navy Department, Washington, D. C.

[No. 3.]

BUREAU OF SUPPLIES AND ACCOUNTS—STATEMENT OF REAR-ADMIRAL EUSTACE B. ROGERS, CHIEF OF THE BUREAU OF SUPPLIES AND ACCOUNTS, NAVY DEPARTMENT.

COMMITTEE ON NAVAL AFFAIRS,
HOUSE OF REPRESENTATIVES,
Tuesday, December 11, 1906.

The committee met at 10.30 o'clock a. m., Hon. George E. Foss (chairman) in the chair.

The CHAIRMAN. We start in with your Bureau, on page 4, "Pay, miscellaneous. For commissions and interest." What are those commissions on?

Admiral ROGERS. The commissions are upon the money that is transmitted to London to be drawn against by the paymasters on foreign stations. We get interest on daily balances, and we pay them a commission.

The CHAIRMAN. What interest, 2 per cent a year?

Admiral ROGERS. Yes; last year the interest was greater than the commissions by about \$500.

The CHAIRMAN. The next is:

Transportation of funds; exchange; mileage to officers while traveling under orders in the United States, and for actual personal expenses of officers while traveling abroad under orders, etc.

That language is substantially the same all the way down through as last year, except this year you are asking for \$700,000 instead of \$650,000, an increase of \$50,000. Will you kindly explain the necessity for that?

Admiral ROGERS. That is based upon the increased demand and the fact that last year's appropriation has been overobligated \$16,514.98.

The CHAIRMAN. Are you asking for a deficiency this year?

Admiral ROGERS. Probably the Secretary will; I can not say.

The CHAIRMAN. What is the largest item of expenditure in that paragraph?

Admiral ROGERS. In pay, miscellaneous.

The CHAIRMAN. Yes.

Admiral ROGERS. Mileage and transportation of officers and civilian employees.

The CHAIRMAN. Can you furnish us a statement showing just what you have expended for these general items during the last year?

Admiral ROGERS. Yes; I have it here in rough form.

The CHAIRMAN. I wish you would place it in your hearing. We will be glad to look it over.

Admiral ROGERS. I suppose, Mr. Chairman, you do not want that accurate to the cent. It is an estimate, very fairly close.

The CHAIRMAN. We would like to have what it was for the last fiscal year, ending June 30.

Admiral ROGERS. Then I will send it to you.

The CHAIRMAN. Then we will pass over to the Bureau of Supplies and Accounts, page 127. The first is:

Provisions, Navy: For provisions and commuted rations for the seamen and marines, which commuted rations may be paid to caterers of messes, in case of death or desertion, upon orders of the commanding officers, commuted rations for officers on sea duty, etc.

The language there is the same until we get down to page 128, and then we have:

Six thousand United States Army, emergency rations, two thousand two hundred and twenty dollars.

What are those for?

Admiral ROGERS. They were added to the estimates by order of the Secretary of the Navy. They were in last year's estimates with his approval. His letter directed that they should be, "one-half to be stored in Olongapo and one-half to be stored at a navy-yard on the Atlantic coast to be designated later by the Department."

The CHAIRMAN. How long will these rations keep?

Admiral ROGERS. They will keep practically for all time, sir. There is no limit to the time. I brought one of them here to show you [producing emergency ration].

The CHAIRMAN. How much do they cost now?

Admiral ROGERS. About 37 cents. That is the army emergency ration.

Mr. PADGETT. Mr. Chairman, last year did not the official head of this department testify that these emergency rations were utterly useless and a waste of money?

Admiral ROGERS. He was asked the same question that you asked me, and he stated, just as I have, that they were put in by order of the Secretary. The chairman asked him if he thought they were of much use, and he said he did not think they were.

The CHAIRMAN. That is my recollection, that he expressed it very strongly that it was a waste of money to include them.

Admiral ROGERS. I do not think he put it as strongly as that; but I think I can justify them; not this particular 6,000, but when you come to the next item, to the 75,000 that are asked for, I think they can be fully justified, and I want to explain to the committee just why they are asked for.

The CHAIRMAN. You are asking an increase here from \$5,220,000 to \$6,490,000, an increase of nearly \$1,200,000. What is the necessity for that?

Admiral ROGERS. That is based upon two things—the contemplated increase in the Navy of 3,000 men, making the present 37,000 augmented to 40,000, and the increased cost of the ration due to the changes of the last appropriation act, which has materially increased the cost of the ration, and the ration costs now, at an average, as far as can be judged, 35 cents, and 40,000 rations at 35 cents for 1908 is \$5,420,000. Then in addition there are 3,700 marines who are subsisted on ships, and the marine on the ship draws navy rations. That amounts to \$473,970. Then there are chaplains, boatswains, carpenters, midshipmen at the academy and at sea who still draw the

commuted ration and who are not on navy pay, and they number 1,828, and those rations, at 30 cents per diem, would amount to \$200,714.40. The estimate which was submitted to you by the Secretary, made up by Paymaster-General Harris, estimated those 1,828 rations at 35 cents. I have reduced it, making a difference of \$33,000 less than his estimate.

The CHAIRMAN. You had enough money last year, did you?

Admiral ROGERS. Yes; plenty.

The CHAIRMAN. If we should not give this increase of 3,000 men, if we allowed you the same amount that you had last year—\$5,220,000—would that be sufficient?

Admiral ROGERS. No, sir.

The CHAIRMAN. Why would it not, if there is no increase in the number of men?

Admiral ROGERS. Because if there is no increase of men the 3,700 marines on ships and the 37,000 men, which does not provide for an increase, and estimating 35 cents as the cost of the ration, it would amount to \$5,414,384.40, which is more than your total appropriation of last year. That is at 35 cents to the ration instead of 30 cents, as it has been heretofore. When you asked Paymaster-General Harris last year what would be the cost of the new ration he said probably 33 cents.

The CHAIRMAN. If we did not allow these 3,000 additional men, \$5,414,000 would be sufficient, would it?

Admiral ROGERS. Yes. Say, \$5,445,000, to make it even, or \$5,420,000.

The CHAIRMAN. Suppose we allowed a thousand additional men, what would the increase be?

Admiral ROGERS. That I will have to calculate.

Mr. PADGETT. He has estimated for 3,000 increase, and if you take one-third of that estimated increase you will get what it will be for 1,000 men.

The CHAIRMAN. It will be one-third of the estimated increase?

Admiral ROGERS. Yes. I did not make that calculation.

The CHAIRMAN. You say \$5,414,000. You are asking for \$6,490,000. There is a million dollars difference.

Admiral ROGERS. There are other items which must be added. This \$5,414,000 is simply for food and commuted rations. That does not include the labor in general storehouses, on which the estimate this year was \$655,000. The amount actually being used this year is \$641,000.

The CHAIRMAN. "Labor in general storehouses" is all included in this paragraph, and was included here last year?

Admiral ROGERS. Yes, sir. But this calculation that I gave you, \$5,414,000, is for food and commuted rations only.

The CHAIRMAN. For food only?

Admiral ROGERS. And includes commuted rations.

The CHAIRMAN. Are you increasing the labor in the general storehouses?

Admiral ROGERS. We are not increasing it. I have asked for an increase. Paymaster-General Harris has put the labor in general storehouses this coming year at \$655,000.

The CHAIRMAN. How much was it last year?

Admiral ROGERS. I do not remember what his estimate was last year, but the allotment this year is \$641,000. That is what we are using to-day, for this current year, and that will last until the 30th of next June. The amount used for 1906 I have not got here. That is 1907.

The CHAIRMAN. I wish you would furnish a statement of the amount expended under these different general headings, like labor in general storehouses, and so forth.

Admiral ROGERS. I think that is in last year's report, the allotment for that year; that is, for 1906. I have here the allotment for 1907; that is the distribution which Admiral Harris has made in all our navy-yards and stations of the world—in the United States and on foreign stations.

The CHAIRMAN. I would like to have a statement in connection with all of these paragraphs, showing, for instance, the provisions in regard to commuted rations for seamen and marines, commuted rations for officers on sea duty, and so on.

Admiral ROGERS. That I have just given you.

The CHAIRMAN. We want that information under these general headings, so if questions are asked on the floor, as they frequently are, we can point out where the expenditure has been made.

Admiral ROGERS. There is one difference in the estimate this year from what it was in previous years. The estimates for previous years have been based on the cost of the ration at 30 cents, which is the legal cost of commutation.

The CHAIRMAN. Yes.

Admiral ROGERS. This year there is a recommendation before the Secretary of the Navy to stop all commutation of rations at sea, on seagoing ships, and in that case it will make the ration cost 35 cents. There will be no more issues at 30 cents in cash. So all I can tell you is what was paid for commutation last year; that is, for the fiscal year 1906. We are now operating under this act, and will be until next June.

The CHAIRMAN. Yes. If we should allow an increase of 1,000 men, then we must figure on a ration at 35 or 40 cents?

Admiral ROGERS. Thirty-five cents.

The CHAIRMAN. Thirty-five cents?

Admiral ROGERS. I consider that will be sufficient.

The CHAIRMAN. For a thousand men that would not be very much. That would only be \$350 a day.

Mr. PADGETT. That 35 cents is the ration for one day?

The CHAIRMAN. Yes; for one day.

Admiral ROGERS. For the year that would be \$128.10. One thousand times that is \$128,100. That is just what the increase would be.

The CHAIRMAN. Per thousand men?

Admiral ROGERS. Per thousand men, at 35 cents per ration, for three hundred and sixty-six days.

The CHAIRMAN. You say the food will cost \$5,414,000?

Admiral ROGERS. Without any increase in men; yes, sir; and including commuted rations.

The CHAIRMAN. Without any increase of men?

Admiral ROGERS. The food and commuted rations for officers at sea.

The CHAIRMAN. You say that does not take into consideration the general labor in storehouses?

Admiral ROGERS. No.

The CHAIRMAN. That this last year was \$600,000?

Admiral ROGERS. During the current year, \$641,000, or \$641,496.

The CHAIRMAN. That would make \$6,054,000. You have asked for \$6,490,000. That for the 3,000 additional men would be \$384,000. Altogether it would be \$6,438,000. I see how you figure it. Have you an unexpended balance, or will you have this year?

Admiral ROGERS. I think it likely we will.

The CHAIRMAN. Have you had in previous years unexpended balances under this?

Admiral ROGERS. Yes; I think in every year.

The CHAIRMAN. Would you kindly furnish a statement of the unexpended balance, all that could be reappropriated?

Admiral ROGERS. Our unexpended balance for the fiscal year 1906 is \$632,000.

The CHAIRMAN. What was it the year before that?

Admiral ROGERS. That I can not give you.

The CHAIRMAN. I wish you would find out what the unexpended balance is, because those amounts have been appropriated for this particular purpose once, and they have been charged up to the Navy, and there is no reason in the world why they should not be reappropriated, if they have not been used, and in that way we can cut down our present appropriation.

Admiral ROGERS. No doubt. I asked this figure before leaving the Bureau, and they told me that was correct to a cent—\$632,843.58 is the unappropriated balance for the fiscal year 1906.

The CHAIRMAN. How is the new ration working?

Admiral ROGERS. Very well indeed. It has not worked itself out as yet so that we can get an idea of the cost. We will not know that until the next quarter. We have only one quarter's returns in—that is the quarter ending in September—and that gives us nothing on which to base a true conclusion. This estimate of 35 cents is that of my predecessor, and I have accepted it.

The CHAIRMAN. The next item is on page 132.

Provisions, Navy, emergency rations: For the purchase of seventy-five thousand United States Army emergency rations, thirty thousand dollars.

That is a new item.

Admiral ROGERS. That was put in the estimates on the order of the Secretary of the Navy, and it is for the purpose of supplying to ships what is called "for abandon ship." We have a monthly drill on shipboard for the eventualities of wreck, in which every boat in the ship is fitted out with her entire outfit of arms, instruments, and food, and every man that would go into her, and she leaves the ship, so that the ship is absolutely without anyone on board. That is a monthly drill.

Now, instead of using dummies for that drill, as is done in the British navy, we use an actual ration—that is, bread and meat. Those two articles are put in the boats. You can well imagine that in a cutter, for instance, with 35 or 40 men on board the amount of food for five days will be very bulky, and these emergency rations are recommended for the purpose of taking the place of those "abandon ship" rations, which are separated from the rations of

the ship, every box being marked and stowed in a particular place, and in a very handy place, so that in case of wreck of the ship they can be put instantly into the boats when the ship is abandoned. The consequence is that there is a large amount of bulk and weight in the boats, which contain the crew and officers, when the ship is abandoned, and also during those drills a large destruction of provisions naturally occurs, because those provisions that are being so handled once a month are more or less broken and destroyed and they go to waste and are a loss every year.

The idea is to put 75,000 of those emergency rations in place of the other rations, and the gain will be very great. They cost but 2 or so cents more than the regular ration we ask you to appropriate for, and the saving will be quite 90 per cent in volume and 80 per cent in weight. And I hope that the committee will see its way to including those emergency rations.

The CHAIRMAN. Are these the same rations that you speak of—these 6,000 United States Army emergency rations?

Admiral ROGERS. They are the same ration.

The CHAIRMAN. They are the same?

Admiral ROGERS. Yes.

The CHAIRMAN. If we allowed these 75,000 rations, I presume you could get along without the 6,000?

Admiral ROGERS. I would rather that you would ask Admiral Dewey, when he comes before you, in regard to those 6,000 rations. I am not prepared to state that they are no good. I think they are.

The CHAIRMAN. Does that recommendation come from the General Board?

Admiral ROGERS. From the General Board.

The CHAIRMAN. I am speaking of this provision for emergency rations on page 132 of the bill.

Admiral ROGERS. That comes also from the Secretary and from the General Board.

The CHAIRMAN. From the General Board also?

Admiral ROGERS. Yes.

Mr. PADGETT. What is in that general ration, can you tell?

Admiral ROGERS. Yes; it is composed of a bread and meat component and a chocolate component. It is also made up with a coffee component, and it is supposed to feed one man for one day and to give him food and drink. It is calculated to subsist one man for one day, maintaining his full strength. This is stated in detail on the label.

Mr. PADGETT. Did I understand you to say a moment ago that in this "abandon ship" exercise every man got off the ship?

Admiral ROGERS. Every man leaves the ship; yes, sir.

Mr. PADGETT. What is done with the ship?

Admiral ROGERS. This is done when the ship is at anchor, and I have seen a ship left without a man on her, except a few on watch in engine and dynamo rooms.

Mr. PADGETT. The ship is anchored?

Admiral ROGERS. Yes; the ship is at anchor in harbor. This drill is very rarely performed in a seaway, although I have seen it done when the ship was underway. It is a regular monthly drill. The order is given, and every man takes his place opposite the boat. It is a drill on all our ships. Then every man goes to his boat and does

what he would do in case the ship was an actual wreck. We put on the small boats, the arms, ammunition, a compass, instruments, fish hooks and lines, tools, food, and water, and so forth.

The CHAIRMAN. The next paragraph is "Contingent, Bureau of Supplies and Accounts." You are asking for an increase of \$15,000?

Admiral ROGERS. Yes, sir.

The CHAIRMAN. From \$160,000 to \$175,000. What is the necessity for that?

Admiral ROGERS. You have not the Secretary's estimates transposed here, with the change in verbiage?

The CHAIRMAN. Yes; we have the "interior fittings." The new language is in italics.

Admiral ROGERS. The reason of that was my own suggestion to the Secretary of the Navy. When the Bureau of Yards and Docks puts up a building for us it is built according to contract. They will make any repairs in gutters, plumbing, and floors, partitions, and so on, but when it comes to shelving and such changes that take place inside of a building they have refused to allow the money for that. This "contingent" has been used for that purpose, but I want the authority of law, so that there can be no possible question about it. That is the reason I asked the Secretary simply to authorize an existing condition.

The CHAIRMAN. Has there been any dispute with the Comptroller about it?

Admiral ROGERS. No; never.

The CHAIRMAN. There never has been?

Admiral ROGERS. The point has never been raised, but the application came to me to approve an expenditure of \$400 for Mare Island, and I refused to approve it until I had talked with the Secretary about it, and he suggested, if I had any scruples about it, to ask the committee to put it in the act. That is all. It is simply that I was a little doubtful about it.

The CHAIRMAN. Would these words, "interior fittings," give you any right to put in anything which you have not done before?

Admiral ROGERS. None whatever. "Interior fittings" means shelves, closets, gratings to shut off certain places where stores are stowed so that people shall not have access to them—things of that kind that the Bureau of Yards and Docks have declined to allow us, and have compelled us to stand out of the appropriation of the Bureau; and it has always been done out of the appropriation for contingent, and there is no question about it. The committee knows what it is used for.

The CHAIRMAN. Last year you had \$160,000.

Admiral ROGERS. Yes.

The CHAIRMAN. There is no deficiency this year?

Admiral ROGERS. No, sir; there will be a balance.

The CHAIRMAN. A balance left over?

Admiral ROGERS. Yes, sir.

The CHAIRMAN. About how much?

Admiral ROGERS. About \$10,000.

The CHAIRMAN. Would not that be enough—if you get the same appropriation as last year, would not that be sufficient to carry you through?

Admiral ROGERS. What is left over from 1906 is \$11,800.

The CHAIRMAN. Could you reduce your estimate at all?

Admiral ROGERS. I would not like to, because there are other matters which, if you wish me to, I will state, and I will give you the reason why I do not want to reduce it—why I asked the \$15,000 in addition. I see that you have not got this in italics here, although it is a new item, “coffee mills and repairs thereto.” That is new.

The CHAIRMAN. What is the reason for that?

Admiral ROGERS. The reason is the same as that for the “interior fittings.” We have a coffee mill at New York which supplies all the coffee for the entire service. We ship it all over the world. We can roast, grind, and ship it more economically than we can buy it—at a less cost to the Government, and the men are accustomed to it, and we have a mill there from which we supply all the coffee for the service. That mill is very old and is worn out, and I want to put in a new one at a cost of about \$5,000, which will be included in this appropriation. This was based on my experience in the Cuban affair. I was then the general storekeeper at Boston, and I had two ships to fit out, and I had foreseen this emergency and had a large quantity of coffee on hand.

The CHAIRMAN. You have had a coffee mill heretofore, and have been running it?

Admiral ROGERS. Yes, sir; and have been repairing it under this appropriation.

The CHAIRMAN. And you have been repairing it under this appropriation? Under what appropriation did you first purchase that coffee mill?

Admiral ROGERS. I presume under the same appropriation, because it has been there for a number of years—ten or twelve years or more.

The CHAIRMAN. Will you furnish us a statement of all of these items here for the fiscal year ending June 30, 1906—that is, for instance, what you paid out for expressage, and so on, and the expenses of this naval clothing factory, and all of it?

Admiral ROGERS. Yes; I can give you an estimate of some of those things now.

The CHAIRMAN. Put that in your hearing, if you will, because we may be asked about those things on the floor.

Admiral ROGERS. I only want to say, to continue what I was stating, that we found this coffee mill broke down right in the middle of this Cuban affair, and we had but 14,000 pounds of coffee in New York. That was a warning.

The CHAIRMAN. How much will a new coffee mill cost?

Admiral ROGERS. Five thousand dollars.

The CHAIRMAN. How many will you want?

Admiral ROGERS. One; that will give us an output of 5,000 pounds daily.

The CHAIRMAN. You say this is the most economical way to get the coffee?

Admiral ROGERS. Oh, far and away. That coffee we can deliver in China, including the cost of transportation, for 13 cents a pound.

The CHAIRMAN. How much would it cost if you had to buy it?

Admiral ROGERS. Not less than 21 cents to 23 cents, or more.

The CHAIRMAN. The next item is:

Freight, Bureau of Supplies and Accounts: All freight charges pertaining to the Navy Department and its bureaus, except the transportation of coal for the Bureau of Equipment, five hundred thousand dollars.

Last year you had \$400,000. Here you are asking for an increase of \$100,000.

Admiral ROGERS. You allowed us a deficiency of \$75,000 in the act of February 27, 1906. We are only asking for the coming year \$25,000 more than that deficiency.

The CHAIRMAN. How are you coming out this year with that \$75,000?

Admiral ROGERS. I think we will come out with a small deficiency, possibly even, and if short, not to a large amount. The Navy is increasing, Mr. Chairman, and \$25,000 in addition to last year's appropriation and the deficiency is not a very great sum.

The CHAIRMAN. It says here, "except the transportation of coal for the Bureau of Equipment." Do you know what that amounts to in the Bureau of Equipment?

Admiral ROGERS. No, sir.

The CHAIRMAN. That is all done by colliers, I suppose?

Admiral ROGERS. Yes; and merchant ships. The Chief of the Bureau of Equipment will give you that.

The CHAIRMAN. Yes. Under "freight charges," I suppose your provisions are the things that you freight the most of?

Admiral ROGERS. No, sir; we pay the freight on every movement of stores for the entire service, except expressage. Freight on everything that is shipped is paid by the Bureau of Supplies and Accounts, except express charges—a small sum each year.

The CHAIRMAN. Those charges are paid by the different bureaus?

Admiral ROGERS. By the different bureaus; yes, sir.

The CHAIRMAN. Now we come to "Civil establishment, Bureau of Supplies and Accounts." That seems to be the same as last year. There are a few added here.

Mr. ROBERTS. Before you pass by page 133 I would like to ask the Admiral a question or two.

The CHAIRMAN. Very well.

Mr. ROBERTS. You have a stenographer in the general storekeeper's house in Boston, have you not?

Admiral ROGERS. Yes, sir.

Mr. ROBERTS. You have to loan that stenographer about one month in the year to the court-martial board?

Admiral ROGERS. Yes, sir.

Mr. ROBERTS. What effect does that have upon your business?

Admiral ROGERS. It affects us somewhat. It simply shortens our work that much. We have more than one stenographer there. We have three, two stenographers and a typewriter.

Mr. ROBERTS. It would not affect you as much as some bureaus that have only one, then?

Admiral ROGERS. It does affect us, and I have protested to the commandant, but only verbally. Mr. Snow, the naval constructor, did so officially.

Mr. ROBERTS. I have heard considerable complaint of that system there. It hampers the work.

Admiral ROGERS. It is properly chargeable to "Pay, miscellaneous, expense of courts-martial," and the expense of a typewriter should be paid from "Pay, miscellaneous;" but their services are distributed, equally divided, among the bureaus there, in proportion to their facilities, during the session of the court-martial.

Mr. ROBERTS. I understand that the system there is to take the stenographer out of each bureau a month at a time, and the court-martial is almost in continuous session there?

Admiral ROGERS. Practically, yes, sir.

The CHAIRMAN. The only change I see is on page 138. The old law read "one shipping and bill clerk," and you have changed it to read "one receiving and shipping clerk, one thousand four hundred dollars, an increase of \$200. Do you wish the name of the clerk changed?"

Admiral ROGERS. Yes, sir.

The CHAIRMAN. You are asking for an increase. That is at Cavite?

Admiral ROGERS. That increase is made upon the recommendation of the general storekeeper there. The expenses are growing in the Philippine Islands since the American occupation.

The CHAIRMAN. Are the clerks paid more over there in Cavite than at home?

Admiral ROGERS. Yes, sir; as they always have been in California for very many years, on account of the increased cost of living.

The CHAIRMAN. You are asking also "one lumber inspector, at one thousand dollars; one expert packer, at nine hundred dollars." That is at Cavite?

Admiral ROGERS. That was before the committee last year, and the correspondence is all contained in the last year's testimony. It was approved then by the Secretary and is again approved by him this year.

The CHAIRMAN. Do you secure these men in this country, or do you take Filipinos out there?

Admiral ROGERS. No, sir; they are generally white men, under the classified service, and sent out from this country. In fact, I am safe in saying that they all are.

The CHAIRMAN. On page 139 is the next:

Naval training station, Great Lakes: In general storehouse: One clerk, one thousand dollars; in all, one thousand dollars.

Do you need a clerk there now?

Admiral ROGERS. Yes, sir; we do. That station is being established and its work is growing. The clerk who is there now is paid out of the appropriation "Provisions, Navy." It is simply transferring him. He is paid under "Labor in general storehouses," and this transfers him to the civil establishment, where he belongs, and the same is true of the naval station at Guantanamo. Those clerks exist there, and they are paid out of the "Labor in general storehouses," so that if this is allowed in the civil establishment "Labor in general storehouses" may be reduced just that much.

The CHAIRMAN. You have a clerk at the Rhode Island training station, have you?

Admiral ROGERS. Yes, sir.

The CHAIRMAN. And also at California?

Admiral ROGERS. Yes, sir.

The CHAIRMAN. So that you are asking for no more at those stations than you have for the others?

Admiral ROGERS. I do not exactly see the bearing of your question in regard to California and Newport.

The CHAIRMAN. I wanted to see where they were—whether they were provided out of any fund.

Admiral ROGERS. These clerks?

The CHAIRMAN. Yes.

Admiral ROGERS. These clerks are now on this duty, and paid, as I say, out of "Labor in general storehouses." They are all paid by the United States.

The CHAIRMAN. They are all paid in that way?

Admiral ROGERS. Yes, sir; the point is that they belong in the civil establishment.

Mr. ROBERTS. It is a question of which fund they should be paid out of?

Admiral ROGERS. They are now paid out of "Provisions," and if this is allowed the fund "Labor in general storehouses" will be reduced by just that much.

The CHAIRMAN. The next is "Naval station, Guantanamo, Cuba."

Admiral ROGERS. That is the same: "One stenographer, at four dollars per diem," and "one store man, at three dollars and four cents per diem."

The CHAIRMAN. You have all these at the present time?

Admiral ROGERS. These are there now, and are paid out of "Labor in general storehouses."

The CHAIRMAN. I guess this covers your Bureau.

Admiral ROGERS. That is all, sir. I would like to say one thing more. Although I have included, under direction of the Secretary, 75,000 rations for "abandon-ship" purposes—75,000 emergency rations—I do not think that will be sufficient. If we have 30,000 men afloat in the Navy that will only give two and one-half rations to each man, which is not enough, and although I would very much prefer that this should be made a separate appropriation, if the committee is going to allow it, I will say this, that if the committee is not willing to allow this \$32,220 and will incorporate in the general terms of the act the authority to buy them—that is, under the caption of provisions, and will permit the purchase of, say, 100,000, or not more than 100,000, emergency rations, I think I can buy them without any extra sum being appropriated.

(At 11.40 o'clock a. m. the committee adjourned until to-morrow, Wednesday, December 12, 1906, at 10.30 o'clock a. m.)

A.

PROVISIONS, NAVY.

37,000 enlisted men of the Navy (as at present); 3,700 marines on ships—subsisted by the Navy: 40.700 in all, at 35 cents per ration for 366 days (leap year)-----	\$5, 213, 670. 00
1,828 officers—commuted rations therefor 30 cents each, for 366 days -----	200. 714. 40

Labor in general storehouses.....	\$655,000.00
75,000 + 6,000=81,000 emergency rations at 37 cents each (75,000 estimated, at 40 cents).....	32,220.00
Total	6,101,604.40
If 3,000 additional men allowed.....	384,300.00
Total will be.....	6,485,904.40
If 1,000 additional men allowed, total will be.....	6,229,704.40

B.

If \$300,000 of balance of "Provisions, Navy," for 1905 and \$500,000 of balance of same appropriation for 1906 be reappropriated, the estimates may be reduced as follows, each by \$800,000:

For 37,000 men, 3,700 marines (subsisted by the Navy), and commuted rations for 1,828 officers.....	\$4,614,384.40
For 3,000 additional men, otherwise as above.....	4,998,684.40
For 1,000 additional men.....	4,742,484.40

To whichever sum is finally decided on should be added the amount for labor in general storehouses.

C.

PROVISIONS, NAVY, 1907.

Allotment for labor in general storehouses during present fiscal year.

Portsmouth	\$23,000.00
Boston	70,000.00
Torpedo station.....	7,481.92
Training station, Newport.....	2,600.00
New York	215,000.00
League Island	36,500.00
Naval Academy.....	5,486.57
Washington	18,000.00
Norfolk	58,000.00
Pensacola	15,500.00
New Orleans.....	7,590.60
Mare Island.....	75,000.00
Training station, California.....	2,553.92
Puget Sound.....	18,500.00
Guantanamo	3,504.16
San Juan.....	5,653.80
Cavite	57,000.00
Guam	11,000.00
Honolulu.....	1,500.00
Olongapo	6,648.00
Total.....	640,496.97

D.

CIVIL ESTABLISHMENTS, BUREAU OF SUPPLIES AND ACCOUNTS, 1908.

Per diem employees.

	313 days.	314 days.
New York:		
2 receiving clerks, at \$4.....	\$2,504.00	\$2,512.00
2 leading men, at \$2.50.....	1,565.00	1,570.00
5 pressmen, at \$2.76.....	4,319.40	4,333.20
1 box maker, at \$3.....	989.00	942.00
1 engine tender, at \$3.26.....	1,020.38	1,023.64
1 coffee roaster, at \$2.50.....	782.50	785.00
1 fireman, at \$2.....	626.00	628.00
1 messenger, at \$2.25.....	704.25	706.50
1 cloth inspector, at \$4.....	1,252.00	1,256.00
1 messenger, at \$2.25.....	704.25	706.50
Difference.....	46.06	
Total.....	14,462.84	14,462.84

Expenditures under appropriation "Pay, miscellaneous," for the fiscal year 1906.

Mileage and transportation of officers and civilian employees.....	\$434,976.03
Net loss on exchange.....	21,340.94
Telegrams, cablegrams, and postage.....	37,508.58
Transportation of funds.....	1,592.37
Expenses of boards.....	6,542.48
Telephone service.....	1,909.59
Expenses of navy pay offices.....	110,623.29
Expenses of prisons and prisoners, court-martial expenses, etc.....	17,072.62
Advertising.....	502.01
Dispatch agent, New York and London.....	1,829.93
Naval attachés.....	12,875.05
Miscellaneous.....	6,344.82
Estimate for mileage, transportation, and other miscellaneous items not paid or adjusted by the Auditor, added to arrive at balance shown by liability record.....	13,397.27
Total.....	666,514.98
Appropriation for fiscal year 1906.....	650,000.00
Overobligated.....	16,514.98
Unexpended balance of fiscal year—	
1905.....	6,248.79
1904.....	22,597.59
1903.....	10,773.24
1902.....	9,320.16

PROVISIONS, NAVY, 1906.

Statement of estimated expenditures under above appropriation.

Purchase of provisions at yards and stations and by pay officers afloat.....	\$2,305,956.52
Rations commuted.....	1,561,032.50
Labor in general storehouses.....	620,167.40
Total.....	4,487,156.42
Balance.....	“ 732,843.58
Appropriated for fiscal year 1906.....	5,220,000.00

“ From the balance shown above, it is estimated that about \$100,000 should be deducted to cover rations due to men in hospitals and hospital apprentices on duty at hospitals, to be charged to this appropriation and credited to the naval hospital fund upon final settlement by the auditor of pay officers' accounts, information as to the actual sum of these charges being not available at the present time.

Unexpended balance for fiscal year—

1905 -----	\$331, 078. 61
1904 -----	^a 72. 28
1903 -----	^a 244. 53
1902 -----	^b 550, 171. 61

CONTINGENT SUPPLIES AND ACCOUNTS, 1906.

Statement of estimated expenditures under above appropriation for each of the principal separate items which make up this appropriation.

Expressage -----	\$169. 46
Fuel -----	1, 822. 96
Books, blank, and stationery—	
From Public Printer -----	\$25, 385. 61
Purchased in open market -----	11, 114. 85
	36, 499. 96
Advertising -----	986. 83
Furniture for general storehouses and pay offices in navy-yards -----	14, 910. 99
Expenses of naval clothing factory and machinery for same (includes 50,000 yards enameled cloth) -----	12, 611. 25
Postage, telegrams, and telephones (estimated \$10,000 of which was spent in the foreign account) -----	14, 573. 68
Tolls and ferriage (car tickets) -----	530. 00
Yeoman's stores and safes -----	5, 775. 18
Newspapers -----	139. 73
Ice -----	1, 970. 66
Other incidental expenses, including packing boxes, materials, chemists' supplies, butter inspection, etc. -----	11, 372. 10
Estimated amount spent on foreign stations, other than for postage and cablegrams -----	2, 610. 61
Transfers at navy-yards and stations from N. S. F. stores and general stock includes stationery for office of general storekeeper, pay officers ashore and afloat; materials for packing stores, care of and interior fittings for general storehouses, etc. -----	44, 253. 63
Total expenditure -----	148, 227. 06
Balance -----	11, 772. 94
Appropriated for fiscal year 1906 -----	160, 000. 00
Unexpended balance for fiscal year—	
1905 -----	25, 026. 15
1904 -----	7, 856. 91
1903 -----	4, 808. 76
1902 -----	22, 171. 56

^a Balance of deficiency appropriation carried to surplus fund.

^b Five hundred thousand dollars of this balance was reappropriated for 1904.

[No. 4.]

BUREAU OF EQUIPMENT—STATEMENT OF REAR-ADMIRAL WILLIAM S. COWLES, CHIEF OF BUREAU.

COMMITTEE ON NAVAL AFFAIRS,
Thursday, December 13, 1906.

The committee this day met, Hon. George E. Foss in the chair.

The CHAIRMAN. The first item is, "Equipment of vessels: For hemp, wire, iron, and other materials for the manufacture of cordage, anchors, cables, galleys, and chains," etc. The language of this paragraph is the same as that of last year?

Admiral COWLES. Yes, sir.

The CHAIRMAN. Last year we gave you \$3,000,000 and this year you are asking for \$3,500,000, an increase of \$500,000?

Admiral COWLES. Yes, sir.

The CHAIRMAN. What is the necessity for that increase?

Admiral COWLES. There has been a decided advance in the requirements of the service during the past year or so, and these requirements are increasing. Much has been accomplished in the establishment of wireless telegraph stations ashore, and the installation of wireless plants on naval vessels. The above expenses have been charged to "Equipment of vessels," but the appropriation has not been increased to cover them. Many modern appliances have recently been installed on naval vessels for sanitary and other reasons, particularly in connection with the cooking and messing systems. There has also been a large increase in electrical appliances for interior and exterior signaling, and for the health and comfort of the officers and crews of seagoing vessels. This has caused a gradual but permanent increase in the expenditures for equipment and supplies. A considerable amount will be required during the year for equipment work in connection with the installation of fire-control systems in all vessels of the Navy.

It is estimated that approximately \$100,000 will be required from this appropriation to pay equipment employees at navy-yards on account of Saturday half holiday, annual leave, and legal holidays during the year. This is an expenditure for which absolutely no service is rendered. In order that the output of the equipment shops may not be reduced by the effect of these holidays the equipment force must be correspondingly increased to offset the time lost on this account.

A recent decision of the Department directs that all supplies under title Y, for new constructions (heretofore purchased from the appropriation "Increase of Navy"), be purchased from the appropriation "Equipment of vessels." This will materially increase the expenditures under this appropriation.

The estimate for this additional amount has been submitted only after a careful deliberation of the increased requirements imposed on the Bureau, and it is hoped that the full amount required will be appropriated.

The Bureau is prohibited by law, under penalty, from creating deficiencies in its appropriations. Under the present purchasing and accounting system of the Navy Department it is impracticable for the Bureau to know at any time with a degree of accuracy the status of its appropriations. In order to avoid this I asked for an extra clerk this year and they cut him out.

The CHAIRMAN. You asked for the extra clerk in the legislative bill?

Admiral COWLES. Yes, sir; but he was not allowed. So I do not see how I am going to be able to keep my books or to tell where we stand with regard to appropriations and expenditures any better than now. The appropriation is therefore practically reduced by the amount of this reservation, say, \$250,000, because we do not know what we have to calculate upon exactly.

The CHAIRMAN. How are you coming out this year?

Admiral COWLES. We are running very close in order to get along. I can give you the items that go to make up the \$3,500,000, if you would like.

The CHAIRMAN. Yes, sir; in general terms.

Admiral COWLES. Hemp for rope, cordage, etc., \$40,000; wire, iron, etc., for manufacture of chain cables, anchors, and ground tackle, \$25,000; canvas for awnings, sails, etc., \$133,000 (this seems a large sum, but the canvas for a first-class battle ship amounts to nearly as much as it did for an old-fashioned ship whose motive power was sail. We use about \$20,000 for a battle ship, and we used a little over \$30,000 for the old ship, which shows that canvas is still largely employed). Water, \$50,000 (that is, the water for the boilers); library books, \$30,000; stationery, typewriters, etc., \$73,000 (we furnish all the typewriters for the ships and for all our own work); removal and transportation of ashes, \$7,000; interior appliances and tools for use at navy-yards, \$81,236; athletic outfits, \$7,500; wireless telegraphy and outfits, \$400,000; china, glass and plated ware, table linen, etc., \$25,394; bakery, galley mess, and pantry utensils, \$25,000; labor in navy-yards, \$1,000,000; pay for legal holidays, half holidays, and annual leave, \$105,000; pilotage and towage, \$49,000; canal tolls, wharfage, etc., \$15,283; nautical and astronomical instruments, compasses, binnacles, etc., \$100,000; naval signals and signal apparatus, \$8,000; lanterns, lamps, etc., \$5,000; bunting and other flag material, \$40,000; photographic materials, instruments, etc., \$1,000; musical instruments, music, etc., \$16,000 (every big ship has a band); electrical appliances, interior and exterior communication, etc., \$400,000, and miscellaneous, impracticable to specify, \$863,587.

That \$863,000 seems rather large, so I have itemized what it is spent for and I have a list here:

Carpets, rugs, curtains, rods and fixtures, dustpans, mats (floor, anchor, collision, sword), shades, cuspidors, bath tubs, water coolers, scales, pumps, hose, nozzles, reducers, boat cloths, boatswain's calls, commanders (iron and wood), boat cushions, dies, fenders (boat and ship), hand and leg irons, Jacob's ladders, life belts, life buoys, nail punches, marlin spikes, mufflers, cargo nets, palms (roping), fire

grenades, seines, trun-buckles, printing outfit, awls, chisels, crowbars, hammers, hatchets, knives, mauls, mallets, pliers, scrapers, wheelbarrows, brooms, brushes, cleaning materials, trays, sewing machines and materials, squilgees, soap, matches, toilet paper, oil cans, filters, tanks, waste cans, sounding machines and equipment, logs and lines, war games, alcohol, graphite, grease, oil and other lubricants, rosin.

The CHAIRMAN. Do you feel as though you could shade that at all this year, or is it rather a liberal estimate?

Admiral COWLES. I do not think it is. I think it is a very close estimate. In fact, \$1,000,000 was the amount originally determined upon, but it was finally decided to make \$3,500,000 suffice if practicable. It is nothing less than a hardship to have to make \$3,000,000 meet the demands made on the Bureau.

Mr. KITCHIN. What was the balance on hand last year, if any?

Admiral COWLES. Very little, indeed. In fact, I should have spent the money up to about \$5,000 had not a gentleman who desired a contract made a foolish mistake. He did not get the contract, therefore, and we had about \$80,000 on hand.

Mr. KITCHIN. How is the \$3,000,000 lasting this year?

Admiral COWLES. We have to stop spending money much before the end of every month in order to make it last.

The CHAIRMAN. I want to ask you whether you have examined into the question of the cost of wire rope. That was a subject that was pretty well aired on the floor last year.

Admiral COWLES. Yes, sir; I have. I do not think that you can buy wire rope for much less than we can make it, judging from the fact that the contractors for these new ships went from one cordage company to another before they could get anybody to take the contract, and then they sometimes fetched up and asked us to make it ourselves. Of course they can make it cheaper outside, but not as good, especially the cordage. As we have a ropewalk, the only difference in cost would be due to the lack of opportunity to have anything like piecework, and our eight-hour labor day and annual leaves go to make up the difference. It is the difference in chain making that is rather large, and not the difference in the ropewalk. It was the chain making where the great point was made, I think. Our specification is not the same as Lloyds, and Lloyds governs outside work. Our own specifications require iron for the chain that costs 4 cents a pound. Outside they will make a chain and furnish material for that. We are reducing the cost for ironwork at Boston very much. We are putting in machinery for the large chains, and we expect to go on and put in machinery for the small chains and reduce the entire cost very much. We are working at that slowly, because we have to use the shop continually for repairing; we can not tear it all to pieces and remodel it, because we keep it going all the time, and so we do a little here and there. We did put in one or two very good machines this year, and we have lowered the price about 1 cent a pound for the chain itself; for the shackles, swivels, and jew's-harps we have lowered it very considerably. We have reduced it from 28 cents to about 10 cents for those parts.

Mr. KITCHIN. Do we use the same iron in our chain as the private chain makers use?

Admiral COWLES. No, sir; we do not.

Mr. KITCHIN. We use a better grade?

Admiral COWLES. Yes, sir; a better grade. They claim on the outside that they make a chain for 4 and 5 cents a pound. We have to give 4 cents for our material, and it costs more for labor than it does for material—say, 5 cents. So that it would cost 9 cents at least to make the finished product.

The CHAIRMAN. If your chains were made by a private concern, they would have to be made under the navy specifications?

Admiral COWLES. Yes, sir. We had some chain made this last year. The Monongahela Iron Works took the contract and made the chain—that is, the plain chain. When it came to the swivels, the jew's-harps, and the shackles, they could not make them, and tried to get it done by three or four other firms. These latter agreed to make them at so much a pound; a different price (I have all the papers if you wish to see them); but they could not do it; they wrote afterwards and threw up the contract. Finally, the first-named firm came to us and asked if we would make the swivels, etc., charging for them at our rates, and we had them made at the Boston yard. They could not fill the contract for our big chains unless we made the special parts for them. Other firms agreed to take the contract and then threw it up, and in the end, as above stated, we did the work ourselves.

The CHAIRMAN. Have you bought any chain from private concerns during the last year?

Admiral COWLES. We are just now completing the buying of the chain that I said was made by the Monongahela Iron Works, and for which we finished the special parts ourselves.

The CHAIRMAN. What did you pay for it?

Admiral COWLES. We paid about 8½ cents.

The CHAIRMAN. How large is it?

Admiral COWLES. Two and three-quarter inches. Of course, we have to make our chain much lighter than the merchant ship's chains, and consequently much stronger, or it will not do the work. We can not carry so much weight. You take the 3-inch chain, 15 fathoms, and it weighs about 8,000 pounds. Fifteen fathoms of a 2½-inch chain weighs 6,500 pounds, and so on down for the lighter chains. That is as heavy as we can afford to make them. We have to save weight on account of the weight required for the armor and guns. We make chains out of the very best material, just as strong and as light as possible.

Of course our chains are subjected to a great deal more stress than a merchant ship's chain. A merchant ship's chain, corresponding to navy 2½-inch chain, weighs about 10,000 pounds for every 15 fathoms. They generally carry a chain a little over 3 inches, which they use in the stream occasionally. A merchant ship generally goes alongside a dock, whereas our ships lie at anchor and there is consequently a great strain brought on their chains. If you are going ahead 3 knots and do not slack up or the anchor does not drag, the chain will carry away. That is as much as the chain will do, but of course the chain is slackened up, and all this extra work wears it out rapidly. The chains have to be pretty strong, and as they have to be light also they must be made of the very best material. Consequently, we have to buy material that outside chain makers would not furnish.

Mr. KITCHIN. What is the standard length of a chain for a battle ship?

Admiral COWLES. Two chains 120 fathoms, and a third chain called the "sheet" anchor chain, 120 fathoms also.

Mr. KITCHIN. You have three chains 120 fathoms long on each ship?

Admiral COWLES. Yes, sir.

The CHAIRMAN. The weight of the chain is very great?

Admiral COWLES. Yes, sir. The weight of that is about 6,500 pounds for 15 fathoms, and you carry 120 multiplied by 3—360 fathoms.

Mr. KITCHIN. With the large 3-inch chain it would be a hundred tons?

Admiral COWLES. It would run up to about 8,000 pounds for 15 fathoms.

Mr. KITCHIN. That would be 64,000 pounds to a chain?

Admiral COWLES. Yes, sir. They are all the time after us to reduce the length of the chains, but you can not do it because at any time you might lose 100 fathoms of chain and an anchor, and you may not be where it is possible to replace it. You may send down divers, but you may not find it; and you may lose the chain in 20 fathoms of water, where it is very difficult to dive, and you may never get the chain back at all.

The CHAIRMAN. The next item is "Coal and transportation," \$3,750,000. That estimate is the same as the appropriation last year?

Admiral COWLES. Yes, sir.

The CHAIRMAN. Are you expecting to have a large unexpended balance this year?

Admiral COWLES. No, sir.

The CHAIRMAN. Do you require all of this appropriation?

Admiral COWLES. I do.

The CHAIRMAN. How many tons of coal do you purchase?

Admiral COWLES. Last fiscal year we purchased 672,867 tons all told, at an average cost of \$4.20 per ton. The year preceding 543,421 tons, at an average cost of \$5.05 per ton.

Mr. KITCHIN. Does this item include the appropriation for what is known as the reserve supply of coal?

Admiral COWLES. I have not bought any considerable amount of coal this year for reserve. I am buying little more than necessary for use to keep the ships going. The General Board likes to have a good deal of coal at the different coaling depots. For instance, two hundred thousand tons at Cavite. I have only 70,000 tons there now. I am going to send 50,000 tons there shortly, as soon as the necessary arrangements for freighting it can be made.

The CHAIRMAN. What do you do; buy it here now?

Admiral COWLES. Yes; we are requiring bids for its transportation in American vessels, steamers, sailing vessels; likewise for its transportation in foreign bottoms, and for coal laid down at Cavite, including transportation. In general terms, we want to see what kind of a bargain we can make. The desire is to ship American coal in American bottoms, but it costs generally \$2.50 to \$3.50 more a ton to land it at Cavite than it does to put the same coal down in foreign bottoms.

Mr. KITCHIN. That is by reason of the special act of Congress, that is all?

Admiral COWLES. Yes, sir. You would naturally use your own coal, and I have not bought a ton of Welsh coal yet for Cavite.

The CHAIRMAN. What makes up the difference; is it in the cost of the material itself?

Admiral COWLES. No, sir.

The CHAIRMAN. Simply the maintenance of the American ships?

Admiral COWLES. Yes, sir. A good many of them if they carried coal out to Manila would not get a cargo back and they would have to charge freight for both ways.

Mr. KITCHIN. That \$3 practically amounts to a \$3 subsidy to the American ships?

Admiral COWLES. Yes, sir.

Mr. KITCHIN. What does the coal cost you?

Admiral COWLES. About \$5 a ton. That is the all-around price. Coal is worth from \$2.75 to \$3 here, steam coal. I can give you a good idea of what it is costing just now. Coal loaded in Government colliers or chartered colliers for shipment costs at present \$2.75 f. o. b. per ton. Georges Creek and Eureka coal cost \$3.25 delivered alongside at New York in barges, and \$2.85 alongside in barges at Philadelphia. Sterling Powelton costs \$3.20 in New York Harbor and \$2.80 at Philadelphia. These prices are all for delivery alongside in barges and are not the price of the coal delivered under the chute, which is less. Elk Garden costs \$2.60 on board Government barges at Baltimore for shipment to Annapolis. That would be practically under chutes; \$2.85 alongside in barges at the Naval Academy. It costs 25 cents more delivered there; \$3.10 at the Naval Academy, stored and trimmed, or stored and piled ashore. Davis Big Vein Cumberland costs \$2.75 delivered at Naval Academy, piled and trimmed. Georges Creek costs \$3.10 alongside navy-yard, Washington, in canal boats. Pocahontas delivered at Lamberts Point, under the chutes, costs \$2.75 per ton.

Mr. KITCHIN. I suppose you will put those figures in the hearings?

Admiral COWLES. Yes, sir.

Mr. KITCHIN. Now, please tell us the cost of some of the coal delivered at Cavite.

Admiral COWLES. To put it out there in American vessels costs about \$10 a ton.

Mr. KITCHIN. That is American coal?

Admiral COWLES. Yes, sir; it costs \$6.50 and \$7.50 per ton freight to get it out there in American vessels, and then there must be added the cost of the coal.

Mr. KITCHIN. \$6.50 freight?

Admiral COWLES. Yes, sir; \$6.50 and \$7.50.

The CHAIRMAN. Would that be on steamers or sailing vessels?

Admiral COWLES. Six dollars and fifty cents for American sailing vessels, and \$7.50 for American steamers.

The CHAIRMAN. Is there competition between the American ships for this business, or is there practically one price?

Admiral COWLES. There is practically one price. American vessels are offered the Bureau as they become available at a given rate. This rate is the same in each instance, and is seldom modified however much or however little the Bureau desires the services. The

average rate for the shipment of coal to Manila in 1904 by foreign steamer was \$5.05. No other kind of vessels were chartered during the year. In 1905 the average rate by foreign steamer was \$4.80 per ton; by American steamer, \$7.38 per ton, and by American sailing vessel, \$6.50 per ton. In 1906 49,567 tons were shipped to Cavite. The average rate by foreign steamer for 18,574 tons of this was \$4. The remainder, 30,989 tons, were shipped in American sailing vessels at an average rate of \$6.04 per ton. No American steamers were chartered, though some offered at \$7.50. We chartered American vessels from Arthur Sewall & Co., I. F. Chapman & Co., and D. B. Dearborn.

Mr. KITCHIN. I infer from what you state that American coal delivered at Cavite costs somewhere between \$9 and \$10 a ton.

Admiral COWLES. Yes, sir; when shipped in American vessels. More than \$10 when shipped in American steamers.

Mr. KITCHIN. What can you buy the foreign coal for?

Admiral COWLES. For probably \$3 less per ton.

The CHAIRMAN. Is it just as good coal?

Admiral COWLES. Yes, sir.

Mr. LOUD. The vessel that takes coal out there brings back Philippine products?

Admiral COWLES. Some of them do. They do if they can.

Mr. LOUD. There is about the same quantity, as I recollect, of hemp and sugar coming this way as there is coal going out there.

Admiral COWLES. I expect they can get some freight, but they complain a good deal that the people who trade regularly out there have rather a cinch on them, and they can probably take freights at much lower rates. American vessels will take coal to Manila and then go on to Hawaii in ballast and get sugar and come home.

Mr. LOUD. It has always been a mystery to me why it has never been arranged that the boats taking coal out could get a cargo coming back so as to lower the freight.

The CHAIRMAN. Insure them a cargo back, you mean?

Mr. LOUD. If that coal was being shipped out by private parties one of the first things they would look after would be to see that coal was sent out in boats that would bring cargoes back—to combine freight—so as to get cargoes both ways, and thereby lessen the freight. It has been a mystery to me why that has not been accomplished. There is about the same quantity of freight coming back as there is coal going over.

Admiral COWLES. Yes, sir; but the return freights are commercial cargoes and are brought back by foreign ships that can handle them at cheaper rates. If private parties were required by law to ship their coal in American vessels, they would find it necessary to use the very limited number of American vessels as they become available, whether return freights were available or not, in the same manner that the Bureau is now required to do. There is no chance to wait for the sugar season or the hemp season, as vessel owners can not afford to do so and will not have their ships idle. As quickly as they arrive in port and are discharged they must load and depart, if not with a load of coal for the Government then for any kind of a cargo they can get. It is a part of the regular business of the ship's owner or agent to arrange return cargoes for the ships. They are generally sufficiently alive to the situation to do this when it is possible, and

usually on their success or failure depends the rate for the outbound cargo.

Mr. KITCHIN. There has been a good deal said about the development of some coal fields on a near-by island?

Admiral COWLES. Yes, sir; they have not any coal out there yet. They talk about it a good deal, and they wanted us to use it. We tried some of it and found it had too much sulphur in it, and that the carbon was low, and it was not coal that we could use without injuring the boilers. There is coal in Borneo, in the Philippines, and in China. There is also coal in Japan, but it is not good, except the Yakaido coal. The Japanese use the latter themselves and will not let you have it. It is said that there is good coal in Alaska, and I wish they would mine it, but they have not yet got communication down to Resurrection Bay to get it to market. Coal is much needed on the Pacific coast just now, and dealers would gladly buy all the Government has stored out there at rates much in excess of what we paid for it. They recently offered us \$10 a ton, and it cost us about \$7 to get there.

Mr. LOUD. Going back to the same topic, the hemp and the sugar have to come this way at a specified time?

Admiral COWLES. Yes, sir; when vessels are at hand to bring them.

Mr. LOUD. And the coal going the other way, is that spread over the whole year, so much a month, or is it available so it could be sent out at any time?

Admiral COWLES. It runs along through the year as ships arrive on this side and become available. Generally about twice a year you get the best chance. Of course their sugar is not always ready and their hemp is not always ready.

Mr. LOUD. But the coal is always ready?

Admiral COWLES. Yes, sir.

Mr. KITCHIN. You have said that the officers desire 200,000 tons of coal at Cavite?

Admiral COWLES. Yes, sir.

Mr. KITCHIN. And we have 70,000 tons there now and you contemplate sending out at an early date about 50,000 tons, approximately?

Admiral COWLES. Yes, sir.

Mr. KITCHIN. How much do you think you will probably send out in the next twelve months—that is, for the fiscal year for which we are now appropriating, from July 1, 1907, to July 1, 1908?

Admiral COWLES. I should say I would send about 150,000 tons.

Mr. KITCHIN. During the fiscal year covered by this appropriation?

Admiral COWLES. Yes, sir. That would give me enough to burn the coal we use out there—about 10,000 tons a month—and not run my supply down too far.

Mr. KITCHIN. It has occurred to me that, under your statement, if we were permitted to buy foreign coal there we could probably save \$400,000 by repealing the provision that requires us to use American coal.

The CHAIRMAN. Is there not some provision in the law whereby, if you believe these companies are holding you up, you can buy foreign coal?

Admiral COWLES. That is the reason we are putting out all these advertisements, and we will find out what we can do. If they attempt to hold us up we will buy foreign coal, or ship our coal in foreign bottoms. The law provides that if exorbitant rates are asked for American ships the President may waive its requirements, but it does not state as to what shall be considered exorbitant rates.

The CHAIRMAN. Have you any authority in such cases under the law?

Admiral COWLES. Only such as stated above.

Mr. LOUD. I would like to ask you if there has ever been an attempt made to systematically get hold of the freighting so as to combine the coal going out and the return products of hemp and sugar?

Admiral COWLES. No, sir; such a thing is not practicable. Shipments depend on the available number of ships. We take about every ship that offers. We do not ask them why they are going.

Mr. LOUD. Would not a private individual sending coal out there try to get the benefit of a combination of the freights?

Admiral COWLES. He might try. But if required to ship in American vessels he would have to take them as they come. Foreign vessels look to the return cargo, for, as stated, their success or failure to secure one will regulate the outgoing freight, and owners of such ships know that the question of rate will cut some figure in the transaction.

Mr. LOUD. Why could not the Government do that?

Admiral COWLES. The Government does all in that direction that a private shipper could possibly do. It has always been the practice heretofore to ship on a low market, except in cases of necessity. It is doubtful if any private shipper ever did or ever could secure rates as low as have been quoted to the Bureau for foreign bottoms. In 1906 we chartered foreign steamers as low as \$4 per ton; American steamers demanded \$7.50. After sufficient tonnage was secured foreign steamers offered as low as \$3.75 and \$3.90. In October, 1906, the Bureau chartered schooners for coal to Guantanamo, Cuba, at \$1.40 per ton; at the same time a commercial charter was reported, in a sheet devoted to that purpose, at \$2.25 per ton.

The CHAIRMAN. That is really a matter for the ships themselves?

Admiral COWLES. Yes, sir.

Mr. LOUD. But a private individual having coal to go out there would undertake, through the shippers or owners, to get the benefit of the combination in some form?

Admiral COWLES. The Government does this in demanding the lowest possible rate, and shipowners know they must depend on return freights in some direction or other in order to make rates for the coal cargo that would be considered. It is the American ship that gets the high rate, and we have little choice in the face of the law of April 28, 1904.

Mr. LOUD. If I had that coal shipped out myself I venture to say that I could get it shipped a great deal cheaper than the Government does by making a combination.

Admiral COWLES. As stated above, I doubt that any commercial institution ever did or ever will get rates any lower than have been secured by the Government. This for foreign bottoms, of course. For American ships we must either accept the rate, however high it may be, or lose the ship.

Mr. KITCHIN. My recollection of the testimony before the committee of Congress for six or seven years past is that we have been paying from \$2 to \$3 more in the total cost of coal out there than we could have bought the same coal for if we had been permitted to buy foreign coal. I believe under the law now that we have a right to buy foreign coal in cases of emergency.

Admiral COWLES. Oh, yes; in case the price is too high we can buy foreign coal or ship American coal in foreign ships; but what is considered "too high" has not yet been determined.

Mr. KITCHIN. I really think that is a very important part of this bill, and I think if you amend your testimony at all, Admiral, you should give us as full information as possible.

Admiral COWLES. I will.

The CHAIRMAN. And I wish also you would put in a copy of the law.

Admiral COWLES. A copy of the law is appended. I also append a statement showing the cost to ship coal to Cavite for the past four years.

[PUBLIC—No. 198.]

AN ACT to require the employment of vessels of the United States for public purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That vessels of the United States, or belonging to the United States, and no others, shall be employed in the transportation by sea of coal, provisions, fodder, or supplies of any description, purchased pursuant to law, for the use of the Army or Navy unless the President shall find that the rates of freight charges by said vessels are excessive and unreasonable, in which case contracts shall be made under the law as it now exists: *Provided*, That no greater charges be made by such vessels for transportation of articles for the use of the said Army and Navy than are made by such vessels for transportation of like goods for private parties or companies.

SEC. 2. That this act shall take effect sixty days after its passage.

Approved, April 28, 1904.

Statement showing cost of transportation of coal to Manila, fiscal years 1903-1906.

1903.

Kind of vessel.	Number of vessels.	Tonnage.	Average rate.
Steamers, foreign	10	41,965.5	\$4.77
Highest rate paid (British steamer)			\$4.95
Lowest rate paid (British steamer)			4.75

1904.

Steamers, foreign	12	57,338.5	\$5.05
Highest rate paid (British steamer)			\$5.35
Lowest rate paid (British steamer)			4.35

1905.

Steamers:			
Foreign	17	85,837.5	\$4.80
American	5	32,114	7.38
Sailing vessels American	5	19,396	6.50
Total	27	144,347.5	5.73
Highest rate paid (American steamer)			\$7.50
Lowest rate paid (British steamer)			4.25

Statement showing cost of transportation of coal to Manila, etc.—Continued.

1906.

Kind of vessel.	Number of vessels.	Tonnage.	Average rate.
Steamers, foreign.....	3	18,578	\$4.00
Sailing vessels, American.....	8	30,989	6.04
Total.....	11	49,567	5.27

Highest rate paid (American sailing vessel)..... \$6.50
 Lowest rate paid (British steamer)..... 4.00

The CHAIRMAN. Contingent. Bureau of Equipment: Express charges on equipment stores, packing boxes and material, and so forth, \$15,000 instead of \$11,000 last year. Will you kindly explain the necessity for the increase?

Admiral COWLES. Well, we had to get more money last year.

The CHAIRMAN. You had a deficiency, did you?

Admiral COWLES. Yes. \$15,000 contingent fund is itemized as follows: Express charges, \$3,000; packing boxes and material, \$1,400; printing, \$100; advertising, \$700; telegraphing, \$1,250; furniture, \$1,800; postage, \$400; car fare, \$300; ice, \$425; telephone, \$1,200; laundry, \$150; labor in navy-yards, \$1,800; miscellaneous, \$2,475. That makes up the \$15,000. In the curtailment of expense for the fiscal year ending June 30, 1906, it was necessary to dispense with many telegrams; we had to stop telegraphing altogether in many cases, and it resulted in a good deal of embarrassment. The Bureau submitted estimates for \$14,000 for the current fiscal year last time, and the Department approved them, but only \$11,000 was appropriated.

The CHAIRMAN. The next item is "Ocean and lake surveys, hydrographic surveys, and for the purchase of nautical books, charts, etc., \$75,000."

Admiral COWLES. That we use up every year, and we could use a great deal more. With that \$75,000 we purchased charts, \$30,000; nautical books, \$700; pay for hydrographic surveys and draughtsmen whom we have on all of the surveying ships, \$25,000; surveying instruments, \$12,500; express charges on charts, books, etc., \$500; miscellaneous materials, instruments, lumber, things which it is impracticable to classify, \$6,000.

The CHAIRMAN. So you require that \$75,000?

Admiral COWLES. We require it; yes.

The CHAIRMAN. Where are you surveying now, or have you been surveying, in the last year?

Admiral COWLES. We have been surveying at Guantanamo, and we have been surveying on the coast of Santo Domingo, and we are now surveying down at Cape Cruz on the south coast of Cuba.

The CHAIRMAN. Depots for coal: And to enable the Secretary of the Navy to execute the provisions of section 1552 of the Revised Statutes, etc., \$400,000.

Admiral COWLES. In regard to that I will say that there has been no money appropriated since the act of March 3, 1905. In the estimates for the fiscal year 1906, the Bureau submitted an estimate for \$700,000 under this appropriation, but \$300,000 was appropriated in the act of March 3, 1905. When the estimates for the present

fiscal year were prepared by the Bureau, an item of \$850,000 was submitted. The Department did not see fit to pass this item to Congress, and there was therefore no appropriation for the establishment of coal depots for the fiscal year. The total amount appropriated for the last four years amounts to but \$900,000. That is all now used up, and we must now await an additional appropriation before undertaking any new work in the way of establishing coaling stations. We asked for \$800,000 this year, but the Secretary cut it down to \$400,000.

Mr. KITCHIN. Where is it proposed to spend this money?

Admiral COWLES. The Bureau has under construction a coaling plant at California City Point, and the funds we have here are insufficient to carry this out to completion. That place is right outside of San Francisco. There is also under construction at Hospital Cay, Guantanamo, Cuba, a coaling station.

The CHAIRMAN. How many in all?

Admiral COWLES. Two; one each at Guantanamo and California City Point.

Mr. KITCHIN. What is the amount proposed to be expended at each place?

Admiral COWLES. Two hundred and fifty thousand dollars is required to finish California City Point, and \$250,000 is required for Hospital Cay, Guantanamo; and we also want \$50,000 for Bradford, but we do not seem to be able to get very far. I have mentioned proposed expenditures for \$550,000 already, and in addition I wanted \$250,000 to start the construction of a plant at San Diego, Cal., making \$800,000 all told, but the Secretary says we can only have \$400,000.

Mr. KITCHIN. How much have we already expended in California on this coal depot, and how much at Guantanamo?

Admiral COWLES. We have work now in progress at Guantanamo which will cost when completed approximately \$300,000, and at California City Point which will cost approximately \$325,000. The funds for this work have been withdrawn from the general account and set aside for the work in hand. The amounts stated, however, are only sufficient to make a good start on these plants. The necessary wharf at each place has required the greater part of each allotment, and there is no money for housing the coal. The additional \$250,000 each is required to complete them.

Mr. KITCHIN. Is it considered that \$250,000 will complete the coal depot at Guantanamo, Cuba?

Admiral COWLES. Yes, sir; and \$250,000 more for California City Point.

Mr. KITCHIN. That will make the total cost at San Francisco \$575,000, estimated, and the total cost at Guantanamo \$550,000?

Admiral COWLES. Yes, sir.

Mr. BUTLER. Let me ask you something regarding the policy of our Department as to coaling stations. As a civilian, it gives me a great deal of concern that perhaps we have not sufficient coaling stations, sufficient places where our ships could stop for coal, and I think I appreciate the necessity of frequent coaling places. Do you intend to make a big depot at Guantanamo?

Admiral COWLES. Yes, sir. We are at work on it now.

With the building of the Panama Canal the Caribbean Sea becomes a focus of maritime commercial activity which will surpass in importance the Mediterranean Sea. Much of the traffic through the Suez Canal will be diverted to the Panama Canal. The United States has guaranteed the neutrality of the Panama Canal, which means not only the canal itself, but the seas closely adjacent to it. The trade routes which will pass through the Panama Canal are shown on the accompanying chart, and it may be seen how much the trade from Gulf ports and the Mississippi region and the Atlantic coast will be affected by the completion of the canal, and how dependent the trade will be on the canal.

The greater part of the trade through the canal will belong to the United States. On this account, and because of the present and future importance of the Gulf ports, the Caribbean region becomes of vast importance to the United States; surpassing even the importance of the Mediterranean to England.

Captain Mahan, in his *Interest of the United States in Sea Power*, concludes that the key to the Caribbean Sea is the Windward Passage, and that the power which has a superior sea force based near that passage will control the Caribbean, the trade leading to the Panama Canal, and the canal itself.

The United States has selected and now controls Guantanamo as its naval base in Caribbean waters. It is admirably situated on the south side of Cuba, about 50 miles from the Windward Passage, and on the flank of the trades routes, particularly the more important ones. A very good beginning has been made toward an efficient emergency repair and supply base; a first-class dry dock is being built, limited repair shops are planned, and a coal depot is being built.

A strongly fortified and equipped naval base, with a good strategical location like Guantanamo, is, in the opinion of the Department, essential to the protection of the Panama Canal and our trade interests. In Atlantic waters the only probable theater of war is the Caribbean, and our battle fleet must have a fortified base where the ships can refill with coal, stores, and ammunition, and repair damages quickly. In peace times our ships must be repaired at the home navy-yards, but in a war in the Caribbean they can not be sent to our home yards and suffer risk of capture and the longer time necessary. The absence of one or two ships might mean the loss of our control, and this can not be risked.

Guantanamo is remarkably well suited for the purposes of a naval base, not only on account of its excellent strategical position, but on account of its natural advantages. It has an excellent harbor, is now being defended by army fortifications, and lies on an island which has great natural resources capable of sustaining the naval base should it be cut off from the United States.

Extracts or statements from Mahan's Interest of the United States in Sea Power.

1. "If, on the other hand, we determine that our interest and dignity require that our rights should depend upon the will of no other State, but upon our own power to enforce them, we must gird ourselves to admit that freedom of interoceanic transit depends upon predominance in a maritime region—the Caribbean Sea—through which pass all the approaches to the Isthmus."

2. "Control of a maritime region is insured primarily by a navy; secondarily,

by positions, suitably chosen and spaced one from the other, upon which as bases the navy rests, and from which it can exercise its strength."

3. "The Caribbean can be more safely guarded against aggressive European States than the route to the Suez Canal, which passes close to their ports."

4. "When, if ever, people recognize that we have three seabords, that the communication by water of one of them with the other two will depend in a not remote future upon a strategic position hundreds of miles distant from our nearest port—the mouth of the Mississippi—they will see also that the word 'defense,' already too narrowly understood, has its application at points far away from our own coast."

5. "Entrance to the Caribbean, and transit across the Caribbean to the Isthmus, are two prime essentials to the enjoyment of the advantages of the latter. Therefore, in case of war, control of these two things becomes a military object not second to the Isthmus itself, access to which depends on them."

6. Mahan states that "the strategic center of interest for both Gulf and Caribbean is to be found in the Windward Passage" (close to which lies Guantánamo).

In considering this subject the following memorandum of Commander C. C. Rogers, U. S. Navy (now hydrographer of the Navy Department, but recently commandant at Guantánamo), may be of interest:

1. Guantánamo Bay extends in a general north and south direction for a distance of about 11 miles, 6 miles of which length by navigable channel are within the limits of the reservation leased to the United States. The part within Cuban territory is known locally as Joa Bay, and has a depth of from 12 to 15 feet, although the channel leading into it is deep. It is the lower part, or that under the American jurisdiction, which is generally designated as Guantánamo Bay. This bay varies from a navigable width of $1\frac{1}{4}$ miles at its entrance to a general width of $2\frac{1}{2}$ miles between Fishermans and Caracoles points, attaining its greatest width—4 miles—between Point Palma, in the northwestern part, and the shores of Granadillo Bay, on the east. It is capable of admitting vessels of the largest draft without difficulty and in safety.

Between Corinaso and Deer points, in the southeastern part of the bay, the shore is deeply indented, and this feature is still more conspicuous in the northwest and northeast sections of the bay, such indentations forming secure bights for vessels of light to moderate draft. About one-half mile to the northward of Leeward Point is the mouth of the Guantánamo River, in which the depths are from 9 to 15 feet for a considerable distance within the entrance. During my experience as commandant, the tug *Sebago* navigated the lower part of this river in the service of the station; and a peculiar feature of it that can be utilized for military purposes is found in Mahomilla Bay, a body of water about $1\frac{1}{2}$ miles long in a northwest and southeast direction, and lying wholly to the westward of the lower part of the Guantánamo River, from which it is entered. This bay would accommodate a considerable flotilla of torpedo boats and destroyers, and any plan of defense would contemplate such use of it.

In the entrance to the Guantánamo River defense vessels of the *Florida* type could be anchored in an advantageous position for a 12-inch fire against an enemy's vessels attempting to enter the bay. The depth between St. Nicolas Point and the eastern shore varies from 28 to 64 feet, and about a quarter of a mile farther in—to the westward of Fishermans Point—from 22 to 47 feet. The latter reach affords an excellent site for a mine field. The general depth of the anchorage ground off Fishermans Point is about 7 fathoms; off the station on South Toro Cay about 5 fathoms. In the bight to the eastward of Corinaso Point there are depths of 7 fathoms, in which the defense vessels could lie and surprise an enemy operating against vessels using this bay as a port of refuge. The several indentations in the northwest section of the bay vary from 15 to 24 feet in depth. There is a large area in this section of about 22 feet depth. The indentations in the eastern part of Granadillo Bay vary from 24 to 29 feet in depth. These locations add greatly to the resources of the defense in operations requiring secrecy or surprise.

Eagle Channel between Medio Cay and the Toro Cays varies from 25 to 47 feet in depth and has a length of about $1\frac{1}{4}$ miles. It is narrow, but could be utilized by even heavy ships to great advantage in the defense of the bay. The shores to the eastward and westward of the entrance are steep-to, con-

sisting of bold bluffs with occasional small coves, in which it would be difficult to effect a landing on account of the Cuzco and other hills. The eastern part of the reservation is rugged and hilly and affords excellent sites for fortifications of any character. The southwestern portion of the station is marked by hills 100 to 300 feet in height. Even in the absence of permanent fortifications temporary batteries would hamper seriously the operation of a considerable force and would probably check, or eventually prevent, the entrance of a smaller force. A notable feature of this bay is that many of the smaller indentations are practically natural sites for dry docks. The several cays are also bordered by mangrove, from which there is a sudden descent into deep water. Hospital Cay, which is considered an excellent site for a coaling station, has a mangrove bordered on each side from 200 to 300 feet in width, which, with a little fill, forms at once an excellent platform for coal. The depths of 27 to 30 feet directly alongside, combined with the unusual extent of platform space, would make it possible for a large number of vessels to coal here at one time. Any amount of coal desired could be stored here, and with lighters and wharfage the facilities for coaling ships would be unsurpassed. The most recent information is to the effect that a daily supply of 500,000 gallons of water is obtainable in one of the valleys to the eastward of the small-arm target range. Plans are under consideration for utilizing this supply for the needs of the station. A 1,000,000-gallon reservoir is being built on North Toro Cay, from which this water can be distributed to any part of the station. The Yateras River, a part of which is about 7 miles to the north-east of the station, and the waterworks at Guantánamo are other sources of supply upon which requisition could be made if necessary.

2. Railways connect Guantánamo city with Calmanera and Déscó Point on the western side of the bay, and with Boqueron on the eastern side. A railway is also under construction between Guantánamo city and Le Maya, a station of the Cuba Railroad, and when this section is completed there will be a through railway service from Habana, via Guantánamo, to Calmanera. The several branches to Nipe Bay and other points on the northern coast increase the routes by which, if necessary, the station may be approached. The cables of the French Cable Company land at Fishermans Point and are connected, through the bay and overland, with Calmanera, where the cable office is located. Land telegraph lines extend from Calmanera to Guantánamo; which is connected with all parts of the island. Supplies can be obtained at Guantánamo and Calmanera for use of ships. During the stay of the Atlantic Fleet in the spring of 1906 the Calmanera Ship Chandlery Company supplied the fleet with fresh meat and vegetables. There was some difficulty in keeping up the supplies of vegetables, but the frequent visits of ships and the regular visits of the fleet are encouraging contractors to increase their facilities in this respect, and a continuance of this practice will probably bring the resources of the port to the point necessary for adequate supply.

The foregoing features, which contribute in such a marked way to the advantages of the port for naval purposes, are now being supplemented by permanent fortifications between Fishermans and Windward points and on Condé Bluff. An armored ship is kept permanently in the bay as a part of the station force.

Mr. BUTLER. What territory, if I might use the term, ought the Guantánamo station to supply?

Admiral COWLES. For all our vessels operating on the southern part of this coast.

Mr. BUTLER. And in the Gulf?

Admiral COWLES. Yes. You see we have given up our coaling station at Dry Tortugas altogether, and removed the coal from there.

Mr. BUTLER. Tortugas was away up in the Gulf?

Admiral COWLES. It is 60 miles west of Key West and about 95 miles north of Habana. We will probably have a coaling station at the mouth of the canal when that is done. We are surveying north of there now at Almirante Bay.

Mr. KITCHIN. What appropriation are you already working on for this coal depot at Guantánamo?

Admiral COWLES. Under the old appropriation made two years ago.

Mr. KITCHIN. A similar one to this?

Admiral COWLES. Yes, sir.

The CHAIRMAN. How much unexpended balance have you to-day?

Admiral COWLES. We have not any money at all available for expenditure. We are just about even now.

The CHAIRMAN. How much are you asking for?

Admiral COWLES. We asked for \$800,000, but the Secretary reduced it one-half, and the estimate before you is \$400,000.

Mr. BUTLER. For Guantanamo alone, or all the stations?

Admiral COWLES. We wanted \$250,000 each for Guantanamo, California City Point, and San Diego, Cal., and \$50,000 to complete the station at Bradford. While coal depots in a number of places are desirable, I have asked for money to build the three which are considered the most important and most needed—that is, Guantanamo, San Francisco, and San Diego, Cal.—but if only \$400,000 is appropriated we will have to do the best we can and make it go as far as possible.

Mr. BUTLER. San Diego, Cal.?

Admiral COWLES. Yes. But we have not done anything there at all yet.

Mr. BUTLER. When was the authorization made for San Diego, Cal.; do you remember that?

Admiral COWLES. It was some years ago, before my time. There was a quarantine station down there, and we have been a little slow about getting the work done.

Mr. BUTLER. What do you know about the condition of the water at San Diego as to depth?

Admiral COWLES. It is all right; it is a good harbor.

Mr. BUTLER. Do you know anything about the movement that was made there to trade some land owned by individuals to the Government for the Government lands so as to improve the Government facilities?

Admiral COWLES. No; I do not know about that.

Mr. BUTLER. My recollection is that there was a bill pending in Congress authorizing the transfer.

Admiral COWLES. The land set aside for a coal depot was transferred from the War Department to the Navy Department. The Marine-Hospital Service secured a portion of this land by an act of Congress, on which was built the quarantine station. It was considered undesirable to build a coal depot alongside of a quarantine station, and the bill referred to was for the purpose of acquiring land elsewhere for the quarantine station in order that it might be moved.

Mr. BUTLER. This money is used simply at Guantanamo and California City Point?

Admiral COWLES. Nowhere else.

Mr. KITCHIN. What land? How much and where is the land that is intended to be purchased under this item? The item says "including the purchase of necessary land."

The CHAIRMAN. That is the general provision of the act itself.

Mr. KITCHIN. No: the act has not that provision in it.

Admiral COWLES. The clause "including the purchase of the necessary land," was first incorporated in the appropriation "Depots for coal," in the act of July 1, 1902. This was done because the accounting officers of the Treasury decline to allow, in the accounts of a purchasing pay officer, vouchers drawn in payment for land purchased in the State of Rhode Island on which is now established the coal depot at Bradford. At the same time an additional provision of the act referred to directed the accounting officers to allow this expenditure. It is very desirable that the phraseology of the act be not changed, in order that complications may not arise in the event of necessity arising to purchase land.

Mr. KITCHIN. I raised that point once and the Chair held that it was a necessary implication, but not provided for. In the act No. 1552 of the Revised Statutes it says:

The Secretary of the Navy may establish at such places as he may deem necessary suitable depots for coal and other fuel for the supply of steamships of war."

The fact that you put it in here, when it was not in the Revised Statutes, made me think that you had a certain piece of land already in view. I understand, Admiral, that you say you have no particular land in view at this time.

Admiral COWLES. No.

The CHAIRMAN. Civil establishments. Navy-yard at Portsmouth, N. H., same as last year.

At Boston you want one writer at \$950 and one at \$1,100, and increase for one of those writers, I believe, of \$150. That is a little more money.

Admiral COWLES. Yes; he wants his pay raised. He has been there a long time, and his pay ought to be raised. That is only a \$150 increase.

The CHAIRMAN. You have some other raises at New York.

Admiral COWLES. Well, we want a copyist in the testing laboratory at \$900.

The CHAIRMAN. Have you not one there now, paid under the general fund?

Admiral COWLES. This is a new man that we want. We have much work there, and we do a great deal of testing. We want a new man to help out in the work, and an increase of pay of two writers from \$950 to \$1,000.

The CHAIRMAN. How about Cavite—one file clerk and stenographer, \$900. Is that new?

Admiral COWLES. That is new. We haven't anybody there.

The CHAIRMAN. And at Guantanamo, one writer at \$1,200.

Admiral COWLES. We ask for a clerk and a writer at Guantanamo. The clerk was stricken off, in the interest of economy, and the writer was left. We have nobody there now. The officers are doing the work.

The CHAIRMAN. Is there much of an equipment station there?

Admiral COWLES. They are doing a good deal of work—a lot of surveying and construction work in the establishment of the coaling station. There is a great deal of work going on at Guantanamo.

The CHAIRMAN. How is the naval station at New Orleans? I see you want a clerk there at \$1,000.

Admiral COWLES. Yes; they want that.

Mr. KITCHIN. I think, Admiral, that you will find an apparent inconsistency in your testimony upon that Guantanamo matter, or that I have misunderstood you. I understood you to say at one time that you had spent nothing on the naval depot at Guantanamo, and that \$250,000 would cover the entire cost. I understood you to say later that you had already done some work there on this naval depot out of a former appropriation.

Admiral COWLES. We have established a temporary coaling station at Guantanamo, which will ultimately become a part of the permanent establishment. This station handled in an out last year over 35,000 tons of coal, at a valuation of approximately \$160,000, and in addition to this probably as much coal was issued at the station direct from colliers, which did not enter into the accounts of the station.

Contracts have been let and work is now in progress for the building of a permanent wharf and for providing and constructing the coal-handling plant and providing the necessary machinery. The concrete platform on which the coal will be stored and cottages for housing the custodian and other permanent employees are in course of construction by day laborers under direction of the commandant. Proposals will be opened on December 19 for the standpipe, and the distilling plant taken from Dry Tortugas is all ready to be transferred to Guantanamo and erected at that place. It will be seen, therefore, that while considerable work is in progress and in contemplation to make this place a complete and up-to-date coaling station it has but fairly begun. It is to complete this station that \$250,000 was requested.

[No. 5.]

**BUREAU OF MEDICINE AND SURGERY—STATEMENT OF
P. M. RIXEY, SURGEON-GENERAL U. S. NAVY.**

COMMITTEE ON NAVAL AFFAIRS,
Thursday, December 13, 1906.

The CHAIRMAN (Mr. Foss). The first is the "Medical Department: For surgeons for vessels in commission, navy-yards, naval stations, Marine Corps," and so forth, \$270,000, or an increase of \$15,000.

Surgeon-General RIXEY. That is due to the increased expense incident to the enlistment of 3,000 additional men estimated for by the Bureau of Navigation.

The CHAIRMAN. If those men are not allowed, you do not want it? Surgeon-General RIXEY. No.

The CHAIRMAN. Have you not enough money to carry you through this year—you are not going to ask for a deficiency, are you?

Surgeon-General RIXEY. There will be no deficiency.

The CHAIRMAN. The next is, "Naval hospital fund, \$40,000," the same as last year. The next is, "Contingent: Bureau of Medicine and Surgery, \$60,000." There is an increase there of \$5,000.

Surgeon-General RIXEY. This increase will not be required if the 3,000 additional men asked for by the Bureau of Navigation are not allowed.

The CHAIRMAN. The next is, "Transportation of remains." Do you need that amount?

Surgeon-General RIXEY. Yes, sir.

The CHAIRMAN. Do you recall the significance of that date—April 21, 1898?

Surgeon-General RIXEY. Yes; it is the date of the beginning of the Spanish-American war.

The CHAIRMAN. The next is, "Repairs, Bureau of Medicine and Surgery." You ask for \$50,000, an increase of \$5,000.

Surgeon-General RIXEY. That is due to increases in the number of hospitals and the taking care of buildings, roads, cemeteries, grounds, etc. We have 18 hospitals.

The CHAIRMAN. Where are they?

Surgeon-General RIXEY. Yokohama, Japan; Canacao, P. I.; Chelsea, Mass.; Mare Island, Cal.; Newport, R. I.; New York, N. Y.; Norfolk, Va.; Pensacola, Fla.; Philadelphia, Pa.; Port Royal, S. C.; Portsmouth, N. H.; Puget Sound, Wash.; San Juan, P. R.; Sitka, Alaska; Ninth street and Pennsylvania avenue SE., Washington, D. C., and Naval Medical School Hospital, Washington, D. C.; also hospitals under construction at Annapolis, Md., and New Fort Lyon, Las Animas, Bent County, Colo.

The CHAIRMAN. They will not need many repairs.

Surgeon-General RIXEY. The new hospitals, so far as the buildings are concerned, will not need many repairs, but possibly some minor alterations; but the grounds and the roadways have to be improved, shade trees set out, and possibly some grading and filling in.

The CHAIRMAN. The next is a new provision—for the equipment of a hospital for laborers at the naval station, Guantanamo, etc.

Surgeon-General RIXEY. This appropriation of \$900 is for the equipment of a hospital for civil employees, for which purpose there are no funds applicable under the Bureau of Medicine and Surgery. The law clearly says that the funds are for the Medical Department of the Navy. This has been explained to the Secretary of the Navy, and the request for \$900 mentioned above is made by his direction. I believe the conditions existing at this station warrant this expenditure by the Government for the purpose referred to.

The CHAIRMAN. Why could he not do it out of his contingent fund?

Surgeon-General RIXEY. That question I can not answer.

The CHAIRMAN. I see it is "to be immediately available." That would be subject to a point of order.

Surgeon-General RIXEY. At present the medical and surgical requirements are furnished by the surgeons of the Navy at a great disadvantage, owing to the facilities being inadequate to handle the cases as required in a properly equipped emergency hospital. The building, I understand, has already been provided by the Department and the request for these funds is for the equipment of the building now available.

PUBLIC WORKS UNDER BUREAU OF MEDICINE AND SURGERY.

The CHAIRMAN. We will now turn to page 113, "Public works under Bureau of Medicine and Surgery." The first is the naval hospital at Norfolk, Va.; for the renovation of the present hospital buildings and the erection of new wards to cost not to exceed \$200,000. Last year you had \$100,000.

Surgeon-General RIXEY. Yes, sir. You gave us \$100,000 for 1907, with instructions that we should enter into a contract not to exceed \$200,000. Now we ask for the balance of this appropriation, \$100,000.

The CHAIRMAN. That will finish it up?

Surgeon-General RIXEY. Yes.

The CHAIRMAN. We now go to the naval hospital at Canacao, P. I. "For the construction of additional wards, \$50,000, and for the erection of two quarters for the medical staff, \$20,000; in all, \$70,000."

Surgeon-General RIXEY. We have a modern tropical naval hospital at Canacao. Its capacity is 120 beds, and should be increased to accommodate 200 patients under ordinary conditions. It is only necessary to add bed space to accomplish this, as the administrative facilities—the expensive part of the hospital—are already provided for. The addition of \$20,000 for the medical-staff quarters is important at this time, in that arranging for the wards will require the removal of some of the staff's quarters and the erection of additional accommodations for them. I sincerely hope that the \$70,000 may be

allowed in order that we may have ample accommodations for patients so far from home and suitable accommodations for the officers and hospital-corps men who have to labor in the care of the sick in the Tropics. In this connection I wish to state that on the occasion of my visit to the hospital in June last I found the standard of work done up to modern requirement and the results equal to that obtained in any portion of the world, the only difficulty being in the need of additional ward space for enlisted men and additional quarters.

The CHAIRMAN. Suppose we should decide to go up to Olongapo for our permanent naval station?

Surgeon-General RIXEY. The only need at Olongapo at present is a suitable sick quarters; for the station there is need of additional hospital facilities. This can be most economically supplied by enlarging the hospital at Canacao.

The CHAIRMAN. Will you take the men to Canacao?

Surgeon-General RIXEY. Yes; we will take any hospital cases there, emergency cases being cared for at the sick quarters. If it is decided to have a large station at Olongapo, in five or ten years from now you will probably build a hospital, and I selected a site for one while at Olongapo in June last. This hospital, however, should not be asked for until the Canacao and Yokohama hospitals are unable to care for the patients on the station.

The CHAIRMAN. Do you not use the Japanese hospital at Yokohama?

Surgeon-General RIXEY. Yes; especially for the sick of the cruising ships and those on the way home, or convalescents.

The CHAIRMAN. Did they buy the land at Yokohama?

Surgeon-General RIXEY. Yes.

The CHAIRMAN. The next is the naval hospital at Pensacola, \$25,000.

Surgeon-General RIXEY. I asked the Secretary for \$75,000. Since making this request for this hospital a hospital has been established in Bent County, Colo., an abandoned army post. This will relieve the hospital at Pensacola by caring for the tubercular cases and makes it possible to get along with a smaller appropriation. The \$25,000 approved by the Department will make it possible to improve the facilities at the Pensacola hospital for the care of the station sick and those from cruising ships.

The CHAIRMAN. The next is "Naval hospital at Puget Sound, Wash.: For the erection of naval hospital buildings (to cost not to exceed \$150,000), \$75,000."

Surgeon-General RIXEY. The naval hospital at Puget Sound has only a few beds; in fact, it is more sick quarters than a hospital. One hundred and fifty thousand dollars will be required to build a hospital there. If \$75,000 were allowed, work could be commenced at once and the limit could be fixed at \$150,000.

The CHAIRMAN. Could you not get along another year? What do you regard as the most important of these items?

Mr. KITCHIN. Allow me to add that this item says to cost not to exceed \$150,000.

Surgeon-General RIXEY. All of the public improvements asked for are considered of importance. The least important of the public works have been stricken out by the Bureau and the Secretary has

reduced others. It is believed that the best interests of the sick of the coast will be conserved by making the appropriation of \$75,000 during this session of Congress, in order that preparatory work may be started as early as possible.

The CHAIRMAN. How many will your present hospital accommodate?

Surgeon-General RIXEY. Seventeen is the number of beds, but they could put in twenty-five in an emergency.

The CHAIRMAN. Have you many sick there?

Surgeon-General RIXEY. During the year 224 patients were admitted, 191 for diseases and 33 for injuries, a total of 224.

The CHAIRMAN. Are you building any hospitals now?

Surgeon-General RIXEY. We are finishing up Annapolis, and it will be ready by the first of the year. We are getting plans for remodeling the Norfolk hospital.

The CHAIRMAN. Will you need that other \$100,000?

Surgeon-General RIXEY. Yes; next year.

The CHAIRMAN. But you will not need it until you are ready to make the payment?

Surgeon-General RIXEY. No.

The CHAIRMAN. Then you do not want it this year?

Surgeon-General RIXEY. The contract for the new wards and remodeling the old building, not to exceed \$200,000, will be let so soon as the architect's plans are in shape for advertisement and a suitable bid is received.

The CHAIRMAN. You have not yet started in on the work?

Surgeon-General RIXEY. The architects are getting the plans ready now.

The CHAIRMAN. How long will it take to do the work?

Surgeon-General RIXEY. It will take a couple of years.

The CHAIRMAN. "Naval hospital, Great Lakes: For the erection of naval hospital buildings (to cost not to exceed \$150,000), \$75,000." What about that?

Surgeon-General RIXEY. The new naval training station on the Great Lakes necessitates suitable provision for a naval hospital, which should be completed and ready for the reception of patients at as early a date as the other buildings on the station. The estimate of \$150,000 made by the Bureau of Medicine and Surgery will not be sufficient for the requirements of the station, according to Captain Ross and the architect who has charge of the plans for the station. A letter received from the architect states that the hospital, contagious ward, and quarters for officers will cost a total of \$250,000.

The CHAIRMAN. It seems to me that that is a good deal for a hospital.

Surgeon-General RIXEY. The plans of the station are for a certain type of building. The hospital and officers' quarters should correspond, and are estimated for on the same basis as the other buildings already appropriated for, the same architect making the estimates.

The CHAIRMAN. But you will not have to begin it this year, will you?

Surgeon-General RIXEY. It ought to be ready by the time the other buildings are. We ought not to send any men there until we have accommodations for the care of sick. Mistakes have been made in bringing men together without proper preparation, notably at Nor-

folk and League Island, with the result that much sickness developed and many deaths from infectious diseases occurred which could have been avoided by proper preparation before assembling the recruits.

The CHAIRMAN. That seems to be a good deal of money. What have you at Newport?

Surgeon-General RIXEY. A new hospital is needed at Newport now, and this station may be cited as an example of the above-stated danger of assembling recruits before adequate hospital facilities are provided. The present hospital was built under the Bureau of Navigation and on a plan that has not admitted of satisfactory expansion. It is a wooden structure added to from time to time as necessity required, until now further addition is impossible, and we have a patched-up, unsatisfactory building. In other words, it is a hospital inadequate and unsatisfactory, and can not be made to answer the purposes of the station without a new building.

The CHAIRMAN. How much did that hospital cost?

Surgeon-General RIXEY. I don't know; that was built before I came into the Bureau. But we have added to it from time to time. A building like that is a makeshift and the most expensive of all. In the establishment of a plant like the one on the Great Lakes it is cheaper in the long run to build buildings that will be permanent. I thought that officers' quarters would be furnished out of the general fund, but Captain Ross said that not a cent would go for officers' quarters that will be on the hospital grounds, and it will have to be out of money appropriated for the hospital. This would naturally increase the Bureau's estimate of \$150,000, and the architect's estimate is for \$250,000.

The CHAIRMAN. Do you not think that you can build a building that will answer the purpose for \$150,000?

Surgeon-General RIXEY. Not to correspond with the other buildings and build officers' quarters and contagious ward. I can put up a structure that will care for the patients, but not including the officers' quarters. You can build a hospital to care for the patients for \$75,000, but in a little while you would have to do something else with it. The hospital ought to correspond with the general plan.

The CHAIRMAN. They are building with red brick, I believe.

Surgeon-General RIXEY. I believe so.

The CHAIRMAN. The next is the naval hospital, Washington, D. C. For the erection of an addition, symmetrical with the northeast pavilion, solarium, and connecting corridor, to the naval hospital, Washington, D. C., \$60,000.

Surgeon-General RIXEY. The original estimate for that was \$200,000, and it was reduced in the Department to \$125,000, which amount was appropriated by the naval act of March 3, 1903. We want to add two additional wards, as it will double the capacity of the hospital. We had to cut off these wards in order to bring the building within the estimate.

The CHAIRMAN. Have you not got it finished yet?

Surgeon-General RIXEY. Except the two wards, for which an appropriation is now asked.

The CHAIRMAN. You have spent \$125,000?

Surgeon-General RIXEY. Yes, sir; and \$20,000 additional, making the cost of this hospital \$145,000.

The CHAIRMAN. You have the building all up?

Surgeon-General RIXEY. Yes; all up and in commission, and the present ward facilities are not adequate for the number of patients that should be cared for in the hospital.

The CHAIRMAN. Do you take in the naval men?

Surgeon-General RIXEY. Yes; officers and enlisted men.

In this hospital we take cases which are of special teaching value and are of great advantage to the class of young men who have recently entered the service and are pursuing their preparatory course at the Naval Medical School on the hospital grounds. This hospital brings these young men in touch thus early in their career with the special diseases and operative technique most interesting and important to them in the efficient performance of their subsequent duties. It is to be noted that the expenditure of \$60,000 for these two additional wards will practically double the capacity, and thus materially reduce the cost per patient, as the present building cost \$145,000.

The CHAIRMAN. Now you only care for the men and officers in the Navy?

Surgeon-General RIXEY. That is all.

The CHAIRMAN. No outsiders?

Surgeon-General RIXEY. No.

The CHAIRMAN. And no civilian employees?

Surgeon-General RIXEY. Yes; we take them in emergencies. We use a portion of the hospital for dispensary work, prescribing for officers' families, as well as for officers who are living at home.

This was done to save the expense of a large dispensary.

The CHAIRMAN. How much did that whole thing cost, all told?

Surgeon-General RIXEY. The grounds upon which this hospital is built were set aside for hospital purposes by the Department. The appropriation for building the hospital was \$145,000.

The CHAIRMAN. You were given something by another Department for that.

Surgeon-General RIXEY. On these hospital grounds is the building which accommodates the Naval Medical School and the board of examiners for medical officers for entrance and promotion in the Medical Corps. This building was the old Naval Observatory building and is adapted and used for examining board and post-graduate school purposes. This establishment is kept up for the purpose of making young medical officers entering the service acquainted with their duties as naval surgeons, and owing to the great difference between the practice of medicine ashore and afloat, the course given these young officers is of great importance. Of the diseases which they meet in the Tropics many of them are never seen by civil practitioners or taught in medical schools. The course given in this school in bacteriology, blood examination, etc., is entirely practical, and the young surgeon is shown how this work can be carried on under the disadvantages of ship life. The chemical work is practical and deals particularly with the qualitative and quantitative examination of water, food-stuffs, and pathological excretions. The course in tropical medicine is of inestimable value to the young man who has never visited the Tropics.

The CHAIRMAN. How much did our hospital cost at Annapolis?

Surgeon-General RIXEY. Two hundred thousand dollars.

The CHAIRMAN. Have you not got enough to enlarge it?

Surgeon-General RIXEY. When this hospital, which is now nearing completion, is finished, the \$200,000 appropriated will have been expended and three wards will have been omitted.

The CHAIRMAN. So you think you will have to add something on?

Surgeon-General RIXEY. I think it is more than probable.

The CHAIRMAN. How many boys are there there?

Surgeon-General RIXEY. Nine hundred and eighty-seven are authorized. At present there are 750 boys. This hospital will also accommodate the sick of the Navy who may be stationed at the academy, whether enlisted force or officers, and will also do emergency work for the civil employees.

The CHAIRMAN. The next is "Naval medical supply depot, Canacao, P. I.: For the erection of a building for the United States naval medical supply depot on the grounds of the naval hospital, Canacao, \$25,000."

Surgeon-General RIXEY. This depot has no building of its own. It is occupying detached parts of several buildings belonging to other departments of the navy-yard. During the past year its allotted space has been encroached upon to afford additional room for another department. In consequence medical stores received from the United States must be unpacked in the open air, and not until necessary for use, making proper inspection, accounting, and care thereof impossible, resulting in deterioration and loss. At this depot all medical supplies for the Navy in Asiatic waters are assembled and distributed. The immediate erection of a suitable building is imperatively necessary for the protection of public property. This I know from inspection on the ground. The stores are jammed in such shape that it is impossible to pack them and get them in condition to ship to other places. A new building ought to be on the hospital grounds, because there they will be more easily distributed and at least expense.

I would like to file the following statement in connection with my hearing:

No changes in the phraseology of the naval appropriation act for the fiscal year ending June 30, 1907, have been made in preparing the estimates for the fiscal year 1908, except that under appropriation "Contingent" the words "and rendezvous" have been omitted where provision is made for washing for stations and ships, the expenses of the maintenance of rendezvous being provided for under the appropriation "Recruiting" of the Bureau of Navigation.

The increase in the appropriations "Medical Department" and "Contingent," of \$15,000 and of \$5,000, respectively, is necessary to provide for the increased expenses incident to the enlistment of 3,000 additional men estimated for by the Bureau of Navigation. The increase of \$5,000 under the appropriation "Repairs" is necessary for the proper preservation and repair of naval hospitals dependent upon this appropriation for necessary repairs to hospital buildings and appendages, including roads, wharves, sidewalks, outhouses, fences, gardens, farms, and cemeteries. There will be in all seventeen naval hospitals dependent upon this appropriation for repairs during the fiscal year 1908.

Under public works the Bureau has submitted estimates for the construction, extension, and renewal of hospital buildings and appendages at (a) naval hospital, Norfolk, Va.; (b) naval hospital, Pensacola, Fla.; (c) naval hospital, Puget Sound, Washington; (d)

naval hospital, Great Lakes; (e) naval hospital, Washington, D. C.; (f) naval hospital, Canacao, P. I.; (g) naval medical supply depot, Cavite, P. I.

(a) *Naval hospital, Norfolk, Va.*—For the renovation of the present hospital buildings and the erection of new wards, cost not to exceed \$200,000, authorized by the act of Congress approved June 29, 1906, \$100,000. Of the \$200,000 authorized by the act just mentioned \$100,000 was appropriated for the fiscal year 1907.

(b) *Naval hospital, Pensacola, Fla.*—For the renewal of the present hospital buildings and for the erection of quarters for the medical staff outside the naval hospital, \$75,000. This hospital, a light frame structure, was built in 1875. General repairs are required, and the necessity for enlargement is urgent. During the past several winters its capacity has been overtaxed and the efficiency of service embarrassed. The importance of having this, the only naval hospital on the Gulf coast, in condition to accommodate the sick of our fleets when in winter rendezvous at that station is obvious.

(c) *Naval hospital, Puget Sound, Wash.*—For the erection of naval hospital buildings, the cost not to exceed \$150,000, \$75,000. The existing building was designed for the navy-yard dispensary and is therefore adapted neither for hospital use nor to the hospital requirements of the station. There is but one other naval hospital on the Pacific coast of the United States. Without more ample facilities at this station the Department will be unable to provide hospital accommodations for the sick of the Navy on the Pacific coast.

(d) *Naval hospital, Great Lakes.*—For the erection of hospital buildings to cost not to exceed \$150,000, \$75,000. The establishment of a naval training station on the Great Lakes necessitates suitable provision for a naval hospital, which should be completed and ready for the reception of patients at as early a date as the other buildings on the station.

(e) *Naval hospital, Washington, D. C.*—For the erection of an addition symmetrical with the northeast pavilion, solarium, and connecting corridor to the naval hospital, Washington, D. C., \$60,000. The original estimated cost of this hospital, \$200,000, was reduced in the Department to \$125,000, which latter amount was appropriated by the naval act of March 3, 1903. The lowest proposal received for the complete work, after advertisement, was \$24,000 in excess of the appropriation. In consequence of the unexpected increased cost of labor and material in the building trades the Bureau was compelled to omit from its final plans all provisions for the southeast pavilion symmetrical with the northeast pavilion. Another estimate was submitted to the Congress for \$60,000 to complete the building according to original plans and to erect the addition for which appropriation is now requested. Based upon this estimate of \$60,000, an appropriation of \$20,000 was made by the deficiency act of March 3, 1905. The erection of this addition is essential to the completion of the hospital and necessary for its sufficient enlargement to accommodate its quota of patients.

(f) *Naval hospital, Canacao, P. I.*—For the erection of additional wards, \$50,000, and for the erection of two quarters for the medical staff, \$20,000; in all, \$70,000. The present excellent hospital building is inadequate in size for the proper accommodation of the pa-

patients now being admitted. As this is the only naval hospital in the Philippine Islands, its enlargement is necessary.

(g) *Naval medical supply depot, Cavite, P. I.*—For the erection of a building for the United States naval medical supply depot on the grounds of the naval hospital, Canacao, \$25,000. This depot has no building of its own, but is occupying detached parts of several buildings belonging to other departments of the navy-yard. During the past year its already limited allotment of space was further reduced to afford additional room for another department. In consequence, medical stores received from the United States must be unpacked in the open air and not until necessary for use, making proper inspection, accounting, and care thereof impossible, resulting in deterioration and loss. At this depot all medical supplies for the Navy in Asiatic waters are assembled and distributed. The immediate erection of a suitable building is imperatively necessary for the protection of public property.

With reference to paragraph 6 of Department's circular letter, inviting attention to section 3663, Revised Statutes, which provides that full plans shall accompany any estimate submitted to Congress by the head of a department asking for any new specific expenditure, such as the erection of a public building, I have the honor to inform you that such plans have not been prepared in connection with this Bureau's estimates for public works, for the reason that the Bureau has no facilities for the preparation of plans and no appropriation from which the expenses thereof could be defrayed.

With reference to paragraph 2 of Department's circular letter, I have the honor to state that of the required annual appropriations under this Bureau, but one (Medical Department) is divided into subheads of appropriation. The following is a statement of the approximate amounts expended under the appropriations mentioned below during the fiscal year ended June 30, 1906:

Medical Department:	
Appropriated	\$255,000
Expended for surgical necessities.....	\$165,000
Expended for civil establishment	85,000
	<hr/> 250,000
Unexpended	5,000
Naval hospital fund:	
Appropriated	40,000
Entire appropriation expended.	
	<hr/>
Contingent:	
Appropriated	55,000
Expended (no subheads)	50,000
	<hr/> 5,000
Transportation of remains:	
Appropriated	10,000
Entire appropriation expended.	
	<hr/>
Repairs:	
Appropriated	45,000
Expended (no subheads)	37,000
	<hr/> 8,000

Memorandum.—Estimates 1908, reduced by the Secretary on November 15, 1906:

Naval hospital, Pensacola, Fla., from \$75,000 to \$25,000..... \$50,000

I would like also to file the following statement in connection with my hearing, on the Hospital Corps matters.

The facilities for nursing the sick of the Navy at present are entirely inadequate and can not under the present organization be made satisfactory. It is absolutely essential that we have a reorganized Hospital Corps and give to pharmacists and hospital stewards the same pay as other warrant and chief petty officers receive. The hospital apprentices, upon whom the nursing devolves, can not be retained in the service as trained nurses with the inducements now offered them. These apprentices, whether hospital apprentices or hospital apprentices first class, are taught to do their work acceptably in about four years. At the expiration of this four years they are fairly competent nurses and can be relied upon to assist surgeons and do their nursing in a fairly satisfactory manner. What is needed now is greater inducement to retain them in the service. The bill now on the Calendar before the House (No. 12846), introduced by Mr. Roberts, has been passed upon by this committee and favorably reported. What it provides for is absolutely necessary to secure efficient nursing for our sick and injured.

The bill has been approved by three Secretaries of the Navy, and this Bureau has urged upon Congress the needs of the service for over three years. I hope that it will be possible to secure its passage at this session of Congress. If it goes over it means another year of difficulty in handling our sick and injured. Inefficient nursing means suffering for the sick and injured, and no matter how skilled your physician or surgeon may be, the want of trained nursing is sure to be felt. In the Army they have a large hospital corps organization, including trained women nurses and dental surgeons. In the Navy you give us only apprentices to do our nursing. The hospital stewards are men of drugs, first assistant to the surgeon in operations, giving anesthetics when required, and in general charge of the work of nursing aboard ship. These chief petty officers should have the same pay as other chief petty officers; at present they get \$60 per month, where other chief petty officers get \$75 per month. Hospital apprentices do the nursing, assist the surgeon in operations, and on board ship generally care for the sick quarters. These men should be trained carefully. Under present arrangement we can and do train them, and, as stated before, they remain through their first enlistment; but if any reenlist, they are apt to be those that are least efficient. Occasionally some good men reenlist, hoping for more favorable legislation.

Mr. KITCHIN. Doctor, is it your opinion that the entire medical service of the Navy ought to be put on practically the same basis as the service of the Army?

Surgeon-General RIXEY. So far as is practicable. The two services vary only so far as the medical service of the Navy has to be carried on in great part aboard ship, and there is greater need that the naval surgeon should have skilled nurses and assistants, for the reason that at sea he is deprived of consulting with other surgeons or of obtaining assistance in operations other than that furnished by the hospital corps of the Navy. The naval hospitals should have all that the Army has to carry on their work.

Mr. KITCHEN. Including the dental surgeons?

Surgeon-General RIXEY. We need dental surgeons in the Navy just as much, if not more, than the Army. There is no reason why enlisted men of the Navy should pay for dental work while the Army enlisted man has his work done free; nor is there any reason why the sick of naval hospitals should be deprived of women nurses while the Army has as many as needed. On the contrary, it is a distinct advantage to be able to utilize women nurses in our hospitals in cases of emergency, in order that we may send our men nurses aboard ship. Good men nurses are hard to obtain; good women nurses are always plentiful.

What we want is experienced men nurses in time of peace, and a nucleus of women nurses so that the hospitals can get accustomed to them.

The bills which would add materially to the efficiency of the Medical Department are: First in importance, House bill 12846, reorganization of the Hospital Corps, introduced by Mr. Roberts; second, Senate bill 2207, establishment of corps of women nurses, introduced by Mr. Hale; and third, House bill 13851, appointment of dental surgeons, introduced by Mr. Cousins.

UNITED STATES NAVAL HOSPITAL CORPS.

The recommendation of the Bureau to increase the warrant grade of the Hospital Corps from 25, now allowed by law, to 50 was approved by the Department and included in the provisions of Senate bill 2206 and House bill 12846 of the Fifty-ninth Congress, first session. The bill, however, failed to receive consideration. The increase in the warrant grade of the Hospital Corps proposed by this bill would encourage the most desirable hospital stewards to reenlist, and the authorization of the grade of chief pharmacist would give pharmacists the opportunity, now enjoyed by boatswains, gunners, carpenters, and warrant machinists, of promotion to the lowest commissioned grade.

The Naval Hospital Corps, since its organization in 1898, has proved a great advance toward providing for the Navy a body of trained nurses and hospital stewards. A constant effort has been made to secure for the corps and retain in the service men of sobriety, intelligence, aptitude, and fair education. It is discouraging to note, however, that a large number of the corps do not reenlist, and the Navy thus loses the services of many desirable men who have had four years' training and experience. New enlistments have not been sufficient to fill the vacancies thus created in the corps. While the demands of the service for men of the Hospital Corps have increased, their number has decreased. As present conditions do not attract men of the corps to reenlist and as the supply of recruits is not sufficient, it is therefore evident that without offering additional inducements in pay and in prospect of promotion it will be impossible to obtain for the corps the requisite number of recruits and retain in it experienced and trained men.

The monthly pay now allowed for hospital stewards is \$60; for hospital apprentices, first class, \$30, and for hospital apprentices \$20. The pay of the Hospital Corps was fixed by act of Congress which authorized the corps, but under present conditions this works serious injustice. It is imperative that legislation be enacted to settle

this question of pay in the Hospital Corps at once and for all and give it a share in the benefit of Executive orders, which have up to the present time increased the pay of chief petty officers of the line one-fourth above the chief petty officers of the Hospital Corps. Actual experience during the past eight years and careful study of the present and future needs of the service have convinced the Bureau that the correction of these unsatisfactory provisions of the law and reorganization of the Hospital Corps are imperatively necessary to secure and maintain a competent and efficient body of men for the care and treatment of the sick of the Navy. The necessity for reorganizing and increasing the efficiency of the Hospital Corps has been fully set forth by the Bureau in the last four annual reports.

An organization which will meet the present needs, permit ready expansion in the event of war, and secure an efficient Naval Hospital Corps is, in the opinion of the bureau, provided for in Senate bill 2206 and House bill 12846, Fifty-ninth Congress, first session.

Present condition of the Hospital Corps.

Rate.	Regular stations.	Special stations.	Total.	Enlistments.	Short.
Hospital stewards	229	24	253	223	30
Hospital apprentices, first class	270	16	286	260	26
Hospital apprentices	383	45	428	272	156

No allowance is made for the commissioning of new ships or exigencies such as is now the case in Cuba, where 20 hospital corps men are stationed.

Reasons for present condition.—1. The rating of apothecary, (hospital steward), was established December 8, 1866, with pay at \$60 per month; there has been no legislation increasing this pay since that date.

2. The pay is insufficient and the prospects of advancement which should be held out as an inducement is not adequate to attract and hold experienced and trained men.

3. The fact that the Hospital Corps is deprived of the benefits of Executive orders increasing the pay of all other enlisted men of the Navy. In this connection it is to be noted that the benefits of added compensation for trained men provided for by the Executive orders of June 26, 1903, and, just recently, November 28, 1906, are not shared by the members of the Hospital Corps.

Remedy for present condition.—(1) Senate bill 2206; (2) House bill 12846.

Estimated increased cost should House bill 12846 become a law.

PHARMACISTS.

(a) Present number, with highest pay, total per year	\$43,000
(b) With increased number according to bill, including chief pharmacists	75,180
(c) Total increase per year	\$32,180

HOSPITAL STEWARDS.

(a)	Present number, with highest pay, total per year-----	\$164, 160
(b)	With total increased pay according to bill-----	166, 400
(c)	Total increase per year-----	\$2, 240

HOSPITAL APPRENTICES, FIRST CLASS.

(a)	Present number, with pay, total per year-----	7, 260
(b)	With total increased pay per year-----	10, 690
(c)	Total increase per year-----	3, 430
	Total increase for entire corps-----	37, 850

NOTE.—This does not represent any increase over the other enlisted personnel, but merely places all on an equality of footing.

BENEFITS FROM PROPOSED REMEDY.

1. *To the service.*—(a) Allay serious dissatisfaction among the members of the Hospital Corps.

(b) Will stimulate reenlistments and offer inducements to a class of men (trained nurses) now impossible to induce to enter the service.

(c) Will insure an efficient nursing staff for the service and an intelligent, efficient organization for those important duties of assistant to the surgeon in operations and preventive medicine. The Hospital Corps must be relied upon for all the medical and surgical nursing aboard our battle ships and cruisers and at our hospitals. They must be competent to assist in surgical operations and with the technique of antiseptic work, whether aboard ship or on shore. As these men are trained so will our success be in saving life in and after battle. Besides, in preventive medicine, especially in the Tropics, the trained men are invaluable in keeping the personnel in good condition.

[No. 6.]

NAVAL ACADEMY—STATEMENT OF REAR-ADMIRAL JAMES H. SANDS, SUPERINTENDENT, ACCOMPANIED BY PROF. O. G. DODGE.

COMMITTEE ON NAVAL AFFAIRS,
Friday, December 14, 1906.

The committee this day met, Hon. H. C. Loudenslager in the chair.

The ACTING CHAIRMAN. On page 156 of the bill I see you have stricken out the word "chemistry" and inserted the word "drawing."

Admiral SANDS. I asked subsequently, but it does not appear here, that the name should be changed to professor of mechanical drawing, to agree with the modern title for that work. The professor of chemistry has been appointed a professor of mathematics in the Navy and he continues to do the same work, and consequently the position of professor of chemistry on the civil list is not needed any longer.

The ACTING CHAIRMAN. This is really a new office?

Admiral SANDS. Which one?

The ACTING CHAIRMAN. The professor of drawing.

Admiral SANDS. It was professor of drawing before, but under a less salary. It is a promotion of the professor of drawing from \$2,200 to \$2,500.

Mr. BUTLER. You no longer need the professor of chemistry?

Admiral SANDS. No, sir.

Mr. BUTLER. And the appropriation for him may be stricken out?

Admiral SANDS. No, sir. We ask that the title be changed to professor of mechanical drawing, to allow a promotion, and that the position of professor of drawing at \$2,200 be dropped.

The ACTING CHAIRMAN. That is practically an advance of \$300?

Admiral SANDS. It is a saving, because the one at \$2,200 is cut out.

The ACTING CHAIRMAN. The old professor of chemistry is still drawing \$2,500?

Admiral SANDS. He is in the Navy; he is not a civilian appointee any longer.

The ACTING CHAIRMAN. You ask that this title be made professor of mechanical drawing; why is that?

Admiral SANDS. In order that the title may agree with his work, because it is not any longer free-hand drawing or sketching.

Mr. KITCHIN. What duties did this professor of chemistry perform?

Admiral SANDS. He was the professor of chemistry in the department of physics and chemistry.

Mr. KITCHIN. Do you mean that chemistry will be no longer taught?

Admiral SANDS. No, sir. We will not have a professor of chemistry, but the man who formerly held that position and who is now in the Navy as a professor of mathematics will probably do the same work.

Mr. KITCHIN. Under the title of professor of mathematics he will really do the work of the professor of chemistry?

Admiral SANDS. Yes, sir.

Mr. KITCHIN. Would it not be better to retain the title professor of chemistry?

Admiral SANDS. No, sir; because he has been nominated and confirmed by the Senate and belongs to the Navy proper. This man was a civilian. I have professors of mathematics assigned for teaching languages and history.

Mr. KITCHIN. Can not the man be in the Navy and teach chemistry?

Admiral SANDS. That is what we are doing now.

Mr. KITCHIN. What would be the objection to calling him a professor of chemistry?

The ACTING CHAIRMAN. We do not pay him and therefore he will not be included in the bill.

Admiral SANDS. You do not appropriate for him; the Navy proper provides for him.

Mr. BUTLER. He gets in the bill under "Pay of the Navy?"

Admiral SANDS. He does not appear here.

Mr. KITCHIN. He will now be paid under one of the first items in the bill?

Admiral SANDS. Yes, sir. He does not come under the Navy Academy appropriation at all. He is paid from "Pay of the Navy."

Mr. KITCHIN. Have you other professors who are under the Navy and who are styled professors of mathematics and who teach other branches?

Admiral SANDS. Yes, sir.

Mr. KITCHIN. What other branches?

Admiral SANDS. English, modern languages, and mathematics. Those are the three.

Mr. KITCHIN. In your judgment, would it not be advisable to amend the law so that these men would be called professors of the branches which they teach, even after they are in the Navy?

Admiral SANDS. I do not think so, because we have civilian professors detailed for that work and paid from this appropriation. The Navy Department itself has a recommendation to make in regard to all the professors, which would cover that point without changing it in the Naval Academy appropriation.

Mr. KITCHIN. On its face it looks inconsistent to call a man professors detailed for that work and paid from this appropriation.

Admiral SANDS. Mr. Bonaparte has recommended that they be called academic professors and let them teach what we may choose, but that is in his annual report to the President, and we do not know what is coming of it.

Mr. KITCHIN. Your own judgment is that the recommendation of the Secretary is a wise one?

Admiral SANDS. Yes, sir; I think so.

Mr. BUTLER. Then, if the suggestion of the Secretary of the Navy should be adopted they would all be known as academic professors?

Admiral SANDS. Yes, sir.

Professor DODGE. They are simply called professors at West Point.

Mr. BUTLER. And these men will be assigned according to their qualifications?

Admiral SANDS. The law says now that they may be assigned to any duty that the Secretary may direct.

Mr. BUTLER. This professor of chemistry, as I understand, has gone into the line of the Navy?

Admiral SANDS. The staff of the Navy, not the line. He is the same as Professor Dodge, with less rank.

The ACTING CHAIRMAN. The next change is the reduction of one professor and is on account of a promotion?

Professor DODGE. Yes, sir.

The ACTING CHAIRMAN. The next change is on page 157 of the bill, where you ask for two additional instructors?

Admiral SANDS. That is because we can not get officers and to give some advance to the men who have worked faithfully there, and so instead of putting in two more men at \$1,500, I asked for the higher salary in order to promote the men there. It is valuable for the academy to keep men who have degrees and whose services at the academy have been faithful.

Mr. BUTLER. They are civilians?

Admiral SANDS. Yes, sir; civilians under yearly appointment.

Mr. KITCHIN. As I understand, all whose compensation is provided for under the head of Naval Academy are civilian employees?

Admiral SANDS. Yes, sir.

Mr. BUTLER. How much are the two professors who will be promoted receiving now?

Admiral SANDS. The instructors. One is drawing \$2,200 and will be dropped down to \$2,000, and the other is drawing \$1,500 and will be moved up to \$2,000.

Mr. BUTLER. How about the one who is dropped?

Admiral SANDS. That is a temporary appointment under this year's appropriation, which will run him up to June. He was put into that position because it was vacant, and if we do not get this appropriation he will be dropped down to \$1,500, but I think he is too valuable and I only want to drop him to \$2,000.

The ACTING CHAIRMAN. Where is he now provided for?

Admiral SANDS. In the second paragraph.

The ACTING CHAIRMAN. I thought we took him and put him up to \$2,200.

Admiral SANDS. The man appropriated for as the professor of chemistry went into the Navy as a professor of mathematics, and that created a vacancy several months ago, and instead of letting that salary lapse the professor of drawing was promoted, and an instructor was promoted to the position at \$2,200. Now, if there is no legislation making a vacancy next year he drops out of the academy altogether.

Mr. BUTLER. If this shifting about takes place, it will leave, then, two vacancies, as I understand, in the lower grade of instructors?

Admiral SANDS. Yes, sir.

Mr. BUTLER. These two places will be filled by others who are not now in the service?

Admiral SANDS. Not now in the service.

The ACTING CHAIRMAN. Last year we provided for 9 in these two first paragraphs. Now, this year we provide for 8, which is 1 less, and that other 1 is provided for in the Navy, which makes 9?

Admiral SANDS. There are 9 there now, the vacancy being filled up to next June.

The ACTING CHAIRMAN. That leaves one of the men out of a job?

Admiral SANDS. No; he will be a \$1,500 man if you do not give him a \$2,000 position.

The ACTING CHAIRMAN. We took care of that man in the other paragraph.

Professor DODGE. But the vacancy that was made has also been filled.

Admiral SANDS. We appointed another man to fill the place, but instead of letting him drop down to \$1,500 I want to drop him to \$2,000.

The ACTING CHAIRMAN. Where do you cut out the \$1,500 man?

Admiral SANDS. I do not; I am asking for two more men.

The ACTING CHAIRMAN. At \$2,000 a year?

Admiral SANDS. Yes, sir. One of the men I am going to put there is drawing \$2,200.

Professor DODGE. We drop one at \$2,200 and add two at \$2,000.

The ACTING CHAIRMAN. The \$2,200 man is getting more money?

Professor DODGE. No, sir.

The ACTING CHAIRMAN. I mean out of the pay of the Navy.

Professor DODGE. That is filling a vacancy. Somebody died or retired and the vacancy was filled by this appointment. It was not a position created.

Admiral SANDS. He filled a vacancy caused by retirement.

The numbers and pay of civil professors and instructors now allowed and requested for next year are as follows:

	Now allowed.			Requested.		
	No.	Amount.	Total.	No.	Amount.	Total.
Professors.....	1		\$3,000	1		\$3,000
Do	5	\$2,500	12,500	5	\$2,500	12,500
Do	4	2,200	8,000	3	2,200	6,600
Instructors.....	3	2,000	6,000	5	2,000	10,000
Do	4	1,800	7,200	4	1,800	7,200
Do	10	1,500	15,000	10	1,500	15,000
Total.....	27		52,500	28		54,300

This shows an increase of one in the number allowed and of \$1,800 in the total appropriation for this purpose.

It is suggested to the committee that requests for change of title may be avoided by omitting the subject which they are to teach and appropriating simply for professors, as is now done for instructors. They will then be appointed by the Secretary of the Navy as "professors" (at the Naval Academy), and will be assigned by the superintendent to the department needing their services. This is the exact method followed in the case of all instructors and the system works satisfactorily.

The ACTING CHAIRMAN. The next change is one cataloguer at \$1,100. That is new?

Admiral SANDS. In accordance with the recommendations of a board which I appointed to consider the needs of the library, and also in conformity with the later report of the board of visitors, the following organization of the library staff was recommended to the Department:

	No.	Amount.	Remarks.
Assistant librarian	1	\$1,800	Now allowed.
Cataloguer	1	1,200	Requested.
Shelf assistant (title changed)	1	1,000	Now allowed as assistant librarian.
Shelf assistant	1	900	Requested.

The increase is 1 cataloguer at \$1,200, and 1 shelf assistant at \$900. The title of the assistant librarian at \$1,000 is changed to shelf assistant to conform with his duties, and to place him below the higher paid cataloguer.

The wording of the appropriation should be as follows:

* * *; one assistant librarian, at one thousand eight hundred dollars; one cataloguer, at one thousand two hundred dollars; one shelf assistant, at one thousand dollars, and one at nine hundred dollars.

The library now has 47,000 volumes, and is increasing at the rate of about 1,000 volumes per annum. In its present restricted quarters it is frequently used by over 200 midshipmen at the same time. The catalogue is obsolete in form, and the older part has faded out so that it is of no further use. The whole library should be recatalogued, using the standard card of the Library of Congress, which has become almost universal in large libraries.

Exclusive of the professor of English, who is detailed as librarian, this will give a staff of 4 assistants to do all the work of a library of 50,000 volumes, used by 800 to 900 midshipmen, in addition to the officers and professors of the academy.

I asked for \$1,200 for the pay of this cataloguer, upon the report of the board which was ordered upon the needs of the library. That sum was changed in the Department. I do not know why. Then right below, under the title "Shelf assistants," the pay of one man was reduced \$100. He is now getting a thousand dollars. I only asked for a change of title in his case, and in changing his title they dropped him down \$100 a year.

Mr. BUTLER. Why did you suggest a change in title?

Admiral SANDS. Because there are 47,000 volumes in the new library and I wanted to get it on a proper working basis at once, and that is the usual designation for all libraries with a limited number of people.

Mr. BUTLER. The man will do the same work?

Admiral SANDS. Yes, sir.

Mr. BUTLER. Then why change the title when he is going to do the work?

Admiral SANDS. It is simply the report of this board that was ordered. After correspondence with various libraries they reported that that would be the proper way to reorganize the library.

Mr. BUTLER. This library is supported out of the appropriation of \$3,000?

Professor DODGE. Only about \$2,500; \$500 goes for text-books.

The ACTING CHAIRMAN. This position of cataloguer is new?

Admiral SANDS. Yes, sir; entirely.

The ACTING CHAIRMAN. What is the need of it?

Admiral SANDS. We would like to get somebody to catalogue the library and we want to give him the same title as in other libraries.

The ACTING CHAIRMAN. Who has been doing that work?

Admiral SANDS. Nobody.

Mr. DAWSON. Would the assistant librarian be competent to fill the position?

Admiral SANDS. The cataloguing of libraries is now done by experts in that work. The position should be filled by the appointment of such an expert.

Mr. DAWSON. You drop one assistant at \$1,000. Will you put him in the position of cataloguer?

Admiral SANDS. The board has recommended that the title of the assistant librarian at \$1,000 be changed to "shelf assistant." I am following the report of the board, which has been included in the report of the board of visitors, and which contains the recommendations of the board of visitors. They read it over and they concluded that that was the best way to reorganize the library force.

Mr. KITCHIN. Is this cataloguer to be a permanent position?

Admiral SANDS. Yes, sir.

Mr. KITCHIN. By about what number of books is the library increasing annually?

Admiral SANDS. I can not tell you.

Professor DODGE. I think the library report gives the total increase.

Mr. BUTLER. When you revise your testimony please put it in.

The ACTING CHAIRMAN. Two thousand five hundred dollars a year is spent on it?

Admiral SANDS. Yes, sir; I think so.

Professor DODGE. About a thousand volumes a year has been the average increase for the last thirty-five years, and that is probably a good estimate—a thousand volumes a year.

Admiral SANDS. The man has five years' work ahead of him in cataloguing.

Mr. KITCHIN. That is the reason I asked if it was to be a permanent position.

Admiral SANDS. Yes, sir; he would be busy keeping the catalogue corrected all the time. It seems to me it would be well worth the pay of a man to do that.

The ACTING CHAIRMAN. The next change is the two shelf assistants, at \$900 each?

Admiral SANDS. One of those men is getting a thousand dollars now, and we asked for a change of title.

The ACTING CHAIRMAN. They gave you an extra man?

Admiral SANDS. They reduced his salary \$100, and that is something I did not ask for. I would rather keep him with the same title and have him keep his pay.

Mr. BUTLER. Under what title was the man paid?

Admiral SANDS. As assistant librarian, at \$1,000.

Mr. BUTLER. I thought the cataloguer was going to take that position.

Admiral SANDS. I do not know as to that. I would like to have the pay restored to what I recommend it and the thousand dollars restored to the man who is getting a thousand dollars now. I do not want him reduced.

Mr. DAWSON. He is in the current law as assistant librarian, at \$1,000?

Admiral SANDS. Yes, sir.

Mr. KITCHIN. It may be well to leave him at \$1,000 and put the other man in as one shelf assistant?

Professor DODGE. Then the assistant librarian would be ranked by the cataloguer.

The ACTING CHAIRMAN. The next change is on page 158, "One mechanic in the department of ordnance, at \$751.20?"

Admiral SANDS. That is absolutely necessary in order to care for the arms in the armory. The armory is a large place and the arms are not properly cared for. There is no possible way of preventing mischievous persons from carrying off what they want, and the arms can not be kept clean and in repair for 800 midshipmen.

The present armory force and the increase asked is shown in the following table:

1 mechanic (allowed), at.....	\$951.52
1 mechanic (requested), at.....	751.20
1 armorer (allowed), at.....	649.50
1 chief gunner's mate (allowed), at.....	529.50
1 quarter gunner (allowed), at.....	469.50
2 quarter gunners (requested), at \$469.50 each.....	939.00
4 attendants (allowed), at \$300 each.....	1,200.00
Total.....	5,490.22

They have the care of a building (the armory) 100 by 420 feet, containing six class rooms, two offices, a testing room, a shop, toilets, and a drill floor 100 by 350 feet. They also care for the small arms (about 1,000 rifles, revolvers, etc.) and equipment, the field artillery pieces, and the great guns, mounted in a shed outside. The force, if increased as requested, will be very small for the amount of work to be done.

The ACTING CHAIRMAN. What is the use of all that language? You could just say, two mechanics, one at \$951.52 and one at \$751.20.

Professor DODGE. That whole appropriation could be revised. That was brought about by one item being put in at a time.

Admiral SANDS. We tried that last year, but it was found that they could not make comparisons with comfort, and they went back to the old system in order to see what the changes were.

The ACTING CHAIRMAN. You will have no more cadets next year than this year?

Admiral SANDS. Yes, sir; there will be more, but not many more.

Mr. KITCHIN. I think we either ought to put these salaries at some round number or else we ought to keep the per diem in instead of the total. For instance, here is one mechanic at \$751.20?

Professor DODGE. I do not remember the rate. That is probably estimated on a certain amount per day for three hundred and thirteen days. It amounts to \$2.40 per day.

Mr. KITCHIN. It seems to me it would be better to pay a per diem employee at so much a day, and if he is really an annual employee then he ought to be paid an annual salary, and put it down in round

dollars and not cents. I notice also lower down on the page that one man's salary is increased 18 cents over last year?

Professor DODGE. I will explain that. There is an increase of two quarter gunners. When the estimate was submitted to the superintendent it was at the rate of \$469.68, and the pay of the third man was made to agree with it in order to make one item of the three quarter gunners. The annual salary of \$469.50 is at the rate of \$1.50 per day and should be retained.

Admiral SANDS. If you have a per diem man you can not work him at all times without falling foul of the Civil Service Commission, and sometimes it is necessary to call on them for work at night.

Professor DODGE. Eight hours is a day's work for per diem employees, and then we can not call on them for anything more.

Mr. KITCHIN. Does that same thing apply to your annual employees?

Professor DODGE. No, sir.

Mr. KITCHIN. I thought for overtime they got paid.

Professor DODGE. We have a specific annual appropriation, and therefore no money to pay them overtime.

Mr. BUTLER. What duties will this mechanic have to perform?

Admiral SANDS. He has to keep the arms in repair, superintend the cleaning of the house; and also he has the batteries to look out for, all different caliber guns, all that work—everything in the ordnance department in the way of mechanical appliances.

The ACTING CHAIRMAN. It seems to me the gist of the whole matter is whether you will have more ordnance or more cadets next year.

Admiral SANDS. It is the same material.

The ACTING CHAIRMAN. Is it deteriorating now?

Admiral SANDS. It will if we do not get somebody to take care of it.

The ACTING CHAIRMAN. Is it not taken care of now?

Admiral SANDS. Not as it should be. It is not being taken care of.

The ACTING CHAIRMAN. You have not enough assistants?

Admiral SANDS. No, sir.

The ACTING CHAIRMAN. That is the need?

Admiral SANDS. Yes, sir. I have a comparative statement of the Military and Naval academies showing that for half the number of cadets the Military Academy gets \$60,000 more appropriation, and it is not to be supposed that they are receiving any more than they absolutely need.

The ACTING CHAIRMAN. The reason for that is you have not enough force?

Admiral SANDS. No, sir; we have not.

Mr. BUTLER. The cadets have not the time to do the work?

Admiral SANDS. They can not do anything. They are continually engaged with their studies. They have not time to do anything. They are worked harder than any men I know of.

Mr. LILLEY. I think you are right.

Admiral SANDS. There is no question about it.

The ACTING CHAIRMAN. You ask for two additional quarter gunners?

Admiral SANDS. They are asked for for the same reason.

The ACTING CHAIRMAN. Why should that item be increased two and the other one?

Admiral SANDS. It is an increase of three.

Mr. BUTLER. What is a quarter gunner?

Admiral SANDS. A man who looks out for the arms and keeps the armament in order. The naval title is of a man who has charge of a certain battery. The higher positions are the ones that keep them in repair, and the lower ones are those who clean them, and if intelligent enough they help also to repair them.

Mr. BUTLER. Have you had force enough in this department to do the work?

Admiral SANDS. No, sir. We have not force enough in any department to do the work.

The ACTING CHAIRMAN. The arms are in only about 33 per cent of order at the present time?

Professor DODGE. There is the present force [exhibiting paper].

The ACTING CHAIRMAN. How many quarter gunners have you now?

Admiral SANDS. Only one.

The ACTING CHAIRMAN. That is the one you call chief gunner's mate?

Admiral SANDS. No; the item is right below that.

The ACTING CHAIRMAN. You have one and you ask for three to perform the necessary work, which would be indicative to my mind that at the present time only 33 per cent of it is being done.

Admiral SANDS. The men that we have must work very hard to keep the property in fairly serviceable condition.

Professor DODGE. They work on all kinds of work—cleaning up the building, etc.

Mr. LILLEY. This is the only Government place I have been to where they did not have enough help to do the work properly.

The ACTING CHAIRMAN. The next item is "three seamen," on page 159 of the bill.

Professor DODGE. That is not an increase. They are already in the bill. You will find farther down in the bill two seamen stricken out.

The ACTING CHAIRMAN. The next item is an increase of four attendants at recitation rooms.

Professor DODGE. There are two stricken out right above. It is only an increase of two.

The ACTING CHAIRMAN. That is an increase of two?

Professor DODGE. Yes, sir.

The ACTING CHAIRMAN. They are needed for the same reason?

Admiral SANDS. That is the least possible number that we can get along with; yes, sir.

The ACTING CHAIRMAN. On page 160 of the bill you are asking for one printer at \$720 and one printer at \$480?

Admiral SANDS. Because the Navy Department is going to withdraw the printers we have now and leave me with none. We have to do a great deal of printing and we will have no means of doing it.

Mr. BUTLER. Have you not an appropriation now for a printer?

Admiral SANDS. No, sir; we have an enlisted man.

Mr. BUTLER. And the Navy Department proposes to withdraw that man?

Admiral SANDS. We have a printer, who is a yeoman, and a voluntary devil who is learning the trade, and the Navy Department is going to withdraw the yeoman from us.

Mr. BUTLER. Why?

Admiral SANDS. They are taking everybody, and we must depend upon ourselves. They will give me no man.

Mr. BUTLER. Why do they throw you entirely upon your own resources?

Admiral SANDS. They wish to send the men to sea.

Mr. DAWSON. You have a printing plant there?

Admiral SANDS. Yes, sir. We only ask for a small force.

The ACTING CHAIRMAN. How is this other man paid now?

Admiral SANDS. He is not being paid. He is simply helping us out.

The ACTING CHAIRMAN. Without any compensation?

Admiral SANDS. Yes, sir.

The ACTING CHAIRMAN. Does this appropriation provide for him?

Admiral SANDS. Yes, sir; him or some one equally as good.

Mr. BUTLER. What sort of printing do you have to do?

Admiral SANDS. General orders of all kinds, and they are constant, every day, and the little work that pertains particularly to the academy and not to the outside.

Mr. BUTLER. This printing is absolutely necessary for the conduct of the academy?

Admiral SANDS. Yes, sir.

Mr. DAWSON. Do you print your own blanks?

Admiral SANDS. Yes, sir; all the blanks. Just the other day I had to distribute 1,000 general orders, which I could not have done if I did not have a printing press. I gave the printer the typewritten copy, and he set it up and ran it off in two hours.

The ACTING CHAIRMAN. The Committee on Printing is endeavoring, so far as possible, to center all the printing at one establishment, and is steadily advancing on that ground that all the Government printing must be done at one place.

Admiral SANDS. Sometimes the need is sudden. For example, a doctor reports to me that a certain house has smallpox and it is necessary to quarantine it. I have to get out an order immediately and that order has to go to everybody connected with the academy within 2 miles, and it has to go out at once; that could not be done if I had to make the requisition on the Government Printing Office.

The ACTING CHAIRMAN. You could have those in blank with everything except the house.

Admiral SANDS. Somebody would have to print that in.

The ACTING CHAIRMAN. It could be written in.

Admiral SANDS. Then I would have to get another clerk, which would cost more. We have been trying to get a new clerk through the Civil Service Commission, but nobody is willing to come for the pay that we offer.

At this point I wish to call the committee's attention to the necessity of a small clerical force for duty in the academic departments. The clerical work of these departments has heretofore been done by the officers and instructors, but has now become so great that an increase in the number of instructors will be necessary unless other provision is made to take care of it. Instead of submitting an increase in the number of instructors to the Secretary I asked for four clerks for eight departments, at \$1,000 each, as the cost would be less. This

item was eliminated from the estimates by the Secretary, but should be allowed by the committee for the above reasons, as follows: "Four clerks at \$1,000 each, \$4,000."

The ACTING CHAIRMAN. On page 161 there is a reorganization and reclassification of the musical people at the academy?

Admiral SANDS. The idea is to reorganize the band.

The ACTING CHAIRMAN. I thought we raised the pay a year or two ago?

Professor DODGE. You did raise the pay a few years ago.

Mr. BUTLER. Is not the music good enough?

Admiral SANDS. It is not a question of that, it is a question of the people who have been in the service, two of them a great many years, and when the time comes for them to drop out they do not go on the retired list, but drop out completely, and they have been before Congress for relief a number of times. It was suggested that this legislation would put the band upon a proper footing and take care of those people when they grew old. One man has been there about forty-two years, and he is now ready to drop out.

Mr. BUTLER. Do they get the civilian pension?

Admiral SANDS. The Navy Department is not willing that those people should come in and get the benefit of pensions, although they have been doing military duty all these years, and for a number of years they have been of the opinion that they were in the Navy, but when this question of pension came up it was found that they were not in the Navy.

Mr. DAWSON. Our committee looked into that some last year, and my recollection is that this provision does not yet bring it up to the same standard as the band at the Military Academy?

Admiral SANDS. No, sir. The band is made up partly of enlisted men and partly of civilians, and at any time the enlisted part may be taken and sent off to sea and bring our band down to two-thirds its present size. It is rather a small band for a brigade of nine hundred or a thousand midshipmen. It is not adequate.

The ACTING CHAIRMAN. What pay does an ensign in the Navy get?

Professor DODGE. It is \$1,540. It is \$1,400 for a man coming in from private life and 10 per cent for five years, \$1,540.

The ACTING CHAIRMAN. Does he not get for every five years a still further increase?

Professor DODGE. Yes, sir; up to 40 per cent.

The ACTING CHAIRMAN. How much would this man draw if all his service was credited?

Professor DODGE. About 40 per cent. I should judge he had been there about twenty years.

The ACTING CHAIRMAN. About \$2,000?

Professor DODGE. Yes, sir; \$1,960.

The ACTING CHAIRMAN. What is the pay that these 33 musicians would be entitled to—that is, what is the difference in pay?

Professor DODGE. I have not that information.

Mr. DAWSON. The old band provided for 29 musicians and this provision is for 46?

Admiral SANDS. The old band had to furnish music for a length of line of 300 midshipmen; now it has to go three times the length of that line, and it requires a greater volume of sound.

Professor DODGE. There are 16 enlisted men in addition.

Mr. DAWSON. That would make it practically the same number as you have now?

Professor DODGE. Yes, sir; we are merely putting these men on a common basis.

Mr. DAWSON. You say that 16 are enlisted?

Admiral SANDS. Yes, sir; they are in the service, and when their time expires and they are ready to be reenlisted they must be sent to another place; we can not keep them.

Mr. BUTLER. Why?

Admiral SANDS. They want them at sea.

The ACTING CHAIRMAN. What would these men get under this plan?

Professor DODGE. It depends on their length of service.

The ACTING CHAIRMAN. Just on the first enlistment; that is, without allowing any additional pay for reenlistment?

Professor DODGE. Twelve thousand five hundred and forty dollars is the present pay of the civil band and \$18,848 with the enlisted force.

The enlisted band proposed, neglecting the small increase for length of service, would cost \$19,192 per annum, an increase of \$344. The following table gives the estimate in detail:

PROPOSED BAND.

Band leader	\$1, 960
Second band leader	600
33 musicians, first class, at \$32 per month	12, 672
11 musicians, second class, at \$30 per month	3, 960
Total proposed cost	19, 192

PRESENT BAND.

Civil force:	
Band master	\$1, 200
21 first-class musicians, at \$420 (\$35 per month)	8, 820
7 second-class musicians, at \$360 (\$30 per month)	2, 520
	12, 540
Enlisted force:	
1 band master, at \$52 per month	624
1 first musician, at \$36 per month	432
8 musicians, first class, at \$32 per month	3, 092
6 musicians, second class, at \$30 per month	2, 160
	6, 308
Total present cost	18, 848

Mr. LILLEY. What other means of livelihood have these musicians? Do they work at other trades?

Professor DODGE. Yes, sir; shoemaking and various other trades. They also play at the theater.

The ACTING CHAIRMAN. Would they continue to do that if enlisted?

Admiral SANDS. I do not know. We only work them four hours a day as a rule—

The ACTING CHAIRMAN. Why should they be enlisted?

Admiral SANDS. We want to get them on a sound basis, so that we can get the best men possible to furnish the music; and with the prospect of something afterwards in the way of retirement we can get better men and have them under military discipline.

The ACTING CHAIRMAN. If they have the benefits of retirement and all the benefits of an enlisted man, should they not also have the incumbrances of an enlisted man?

Admiral SANDS. No, sir. We want to keep these men at the Naval Academy, the idea being to raise as far as possible the tone of the Naval Academy and to have the very best that is obtainable for the academy in order that the best men will always be trying to get there and give us the best for the education of the midshipmen.

The ACTING CHAIRMAN. That means completely under military discipline and under your care and sight?

Admiral SANDS. Yes, sir.

The ACTING CHAIRMAN. And not go out and make some other compensation?

Admiral SANDS. There is nothing to prevent an enlisted man on liberty from working at anything he pleases for compensation.

The ACTING CHAIRMAN. But they do not get liberty every day?

Admiral SANDS. These men all sleep outside the academy and have their families outside. A man is not going to live around a place long without having somebody to comfort him. Before passing to the next appropriation I wish to call the committee's attention to the appropriation for mess men. The Navy Department has decided that I can not have any mess attendants for the midshipmen afloat to be supplied from the naval appropriation, and I do not know how these midshipmen are to be served on board the practice ships. The law says if enlisted men are discharged for any cause but physical disability they must return the clothing outfit, and the cost of this outfit is just exactly what their wages are for three months; and therefore they would serve three months with no pay at all. You can not expect any man to do that, and I do not know how we are going to get along, unless we can have them enlisted at the Naval Academy for special service.

Mr. LILLEY. Have you studied the subject of competent waiters and help in the mess?

Admiral SANDS. Yes, sir.

Mr. LILLEY. Have you asked for it here?

Admiral SANDS. I have given the whole statement here and I have asked for nothing.

Mr. LILLEY. Why do you not ask for it?

Admiral SANDS. I did not expect to come up here until the 15th of January, and I did not get my remarks in condition to present to you before I was summoned to this hearing. I submit herewith a comparative statement of the present cost of mess men and the cost if the same positions are filled by enlistment, which shows that the only additional expense to the Government is that due to relieving the midshipmen of a charge of about \$8,000.

The appropriation now made by Congress for employees of the mid-

Total expense.....	39,291.50
The cost of mess men enlisted for the practice cruise was.....	8,163.00
<hr/>	
Total expense to Government.....	30,831.50
Expense of midshipmen for additional help.....	8,460.00
<hr/>	
Total expense.....	39,291.50

To provide an enlisted force to replace the civil list will require the following employees:

2 chief commissary stewards, at \$70.....	per month.....	\$140
1 commissary steward.....	do.....	60
5 stewards, at \$50.....	do.....	150
2 stewards, at \$35.....	do.....	70
3 ship's cooks, first class, at \$55.....	do.....	165
21 ship's cooks, fourth class, at \$25.....	do.....	525
5 mess attendants, first class, at \$24.....	do.....	120
100 mess attendants, third class, at \$16.....	do.....	1,600
2 bakers, first class, at \$45.....	do.....	90
1 baker, second class.....	do.....	35
		<hr/>
Increased pay of 5 mess attendants as stewards for cruise.....		2,955
		<hr/>
Total per month.....		3,175
Total per annum.....		38,100

To carry out the above recommendations the following legislation is suggested, to be substituted for the estimate for stewards, cooks, waiters, etc., as shown on the draft of the bill now before the committee:

Pay of stewards, cooks, bakers, mess attendants, and others for duty in the midshipmen's mess ashore and afloat on the practice cruises of the midshipmen..... \$40,000

Provided, That the employees of the midshipmen's mess shall be enlisted for one year for special service at the academy and afloat in practice ships with the midshipmen: *Provided further*, That the said employees of the midshipmen's mess who may be enlisted as above provided shall not be entitled to any gratuity or increase of pay for reenlistments, to any rations or commutation therefor, or to retirement for age, length of service, or for any other cause: *Provided further*, That the enlistments herein authorized may be made at any time subsequent to the passage of this act, the men so enlisted to be paid for the remainder of this fiscal year from any unexpended balances of the appropriation "Pay of professors and others, Naval Academy," for the fiscal year ending June thirtieth, nineteen hundred and seven.

As this completes all the items under the heading of "Pay of professors and others, Naval Academy," I wish to offer at this point a rearrangement of the items, in which the employees are grouped in the proper sequence. This rearrangement is made so that the committee can see at a glance the total employees of each office or department. This arrangement of the items has been repeatedly suggested by members of the committee and is submitted for that reason. In the cases of the few annual employees not so shown I have changed the amount of pay per annum to an even amount in dollars, omitting the cents, as suggested by a member of the committee.

Pay of professors and others, Naval Academy.

Professors, instructors, and library staff:

1 professor as head of department.....	\$3,000
5 professors, at \$2,500 each.....	12,500
3 professors, at \$2,200 each (decrease of 1).....	6,600
5 instructors, at \$2,000 each (increase of 2).....	10,000
4 instructors, at \$1,800 each.....	7,200
10 instructors, at \$1,500 each.....	15,000
1 swordmaster at \$1,500, 1 assistant at \$1,200, and two assistants at \$1,000 each.....	4,700
2 instructors in physical training, at \$1,500 each.....	3,000
1 instructor in gymnastics at \$1,200 and 1 assistant at \$1,000.....	2,200

1 assistant librarian.....	\$1, 800
1 cataloguer.....	1, 200
1 shelf assistant at \$1,000 and 1 at \$900.....	1, 900
Superintendent's office:	
1 secretary.....	1, 800
2 clerks, at \$1,200 each, 1 at \$1,000, and 1 at \$900.....	4, 300
Office of commandant of midshipmen:	
1 clerk at \$1,200, 1 at \$1,000, and 1 writer at \$720.....	2, 920
Paymasters' office:	
1 clerk at \$1,200 and 1 at \$1,000.....	2, 200
Academic departments:	
4 clerks, at \$1,000 each.....	4, 000
Miscellaneous:	
1 dentist.....	1, 600
1 printer at \$720 and 1 at \$480.....	1, 200
Services of organist at chapel.....	300
Department of seamanship:	
1 coxswain.....	468
3 seamen, at \$396 each.....	1, 188
Department of ordnance:	
1 mechanic at \$960 and 1 at \$720.....	1, 680
1 armorer.....	648
1 chief gunner's mate.....	528
3 quarter gunners, at \$468 each.....	1, 404
Department of physics:	
1 electrical machinist.....	1, 000
2 mechanics, at \$720 each.....	1, 440
Messengers and attendants:	
1 messenger to the Superintendent.....	600
20 attendants at recitation rooms, library, store, chapel, armory, gymnasium, and offices, at \$300 each.....	6, 000
Pay of stewards, cooks, bakers, mess attendants, and others, for duty in the midshipmen's mess ashore, and afloat on the practice cruises of the midshipmen.....	40, 000

Provided, That the employees of the midshipmen's mess shall be enlisted for one year, for special service at the academy and afloat in practice ships with the midshipmen: *Provided further*, That the said employees of the midshipmen's mess, who may be enlisted as above provided, shall not be entitled to any gratuity or increase of pay for reenlistments, to any rations or commutation therefor, or to retirement for age, length of service, or for any other cause: *Provided further*, That the enlistments herein authorized in this section may be made at any time subsequent to the passage of this act, the men so enlisted to be paid for the remainder of this fiscal year from any unexpended balances of the appropriation "Pay of professors and others," Naval Academy, for the fiscal year ending June 30, 1907.

Provided, That the Naval Academy band shall consist of one leader, who shall have the rank, pay, and allowances of a second lieutenant in the Marine Corps; one second leader, with pay at the rate of fifty dollars per month; thirty-three musicians, first class, and eleven musicians, second class: *Provided further*, That all members of the Naval Academy band shall be regularly enlisted for four years in the Navy for special service at the Naval Academy: *And provided further*, That the laws relating to pay and retirements of enlisted men of the Navy be, and the same are hereby, made to apply to members of the Naval Academy band: *And provided further*, That all members of the band shall be credited with all prior service of whatever nature in said band, as shown by the records of the Naval Academy and pay rolls of the ships attached to the academy.

The ACTING CHAIRMAN. On page 162 you ask for an increase of one man?

Admiral SANDS. We ask for a lot of men.

The ACTING CHAIRMAN. The second captain of the watch is the first one?

Admiral SANDS. That is simply an increase of force. I want to get that man as an assistant to the captain of the watch.

The ACTING CHAIRMAN. That will not be needed unless the force is increased.

Admiral SANDS. I think you will give me the force when I call attention to the fact as to why it is needed.

The ACTING CHAIRMAN. The next item is an increase of 15 watchmen?

Admiral SANDS. Yes, sir. In the middle of September every available marine at the academy was taken from the ships and from the barracks and sent down to Cuba. At the same time one of my seven watchmen got sick and another one resigned. That left five watchmen to guard the entire place. I was compelled to keep the draw open and I had to close up two gates, and there was no way that I know of to have prevented anybody evilly disposed coming in and taking anything they wanted. Men did come over the walls and rob the apartments of officers on the ground floor. There was no possibility of protecting them. We do not know of any Government property being lost. I think at all times we should have a sufficient force, so that no sudden demand in our foreign possessions could call away the people who are supposed to do the work of guarding the public property. We have only the services of a few marines now—I think 19.

The watchmen are divided into three shifts of eight hours each, two on a shift. The extra man fills in on account of absences on leave or sickness, and is at other times stationed at the main entrance to the academy. The two watchmen on duty at one time act as a patrol of the entire grounds, about 115 acres, bounded by 4,600 feet of wall on the city side and 6,800 feet of water front. They perform the duties of policemen for this entire area. On the occasions of large drills, hops, ball games, and other large gatherings the watchmen are detailed for extra work, so that they average about ten hours per day. The area to be covered is so great that the watch force can not accomplish the work which they are expected to do.

There should be sufficient watchmen for the following detail: One captain of the watch, 1 second captain of the watch, 6 watchmen for patrol of grounds, three shifts of 2 each; 9 watchmen for gates 2, 3, 4, three shifts of 3 each; 6 watchmen for Bancroft Hall and vicinity, three shifts of 2 each; 1 watchman to fill in during annual leaves of others; a total watch force of 24 men.

As a matter of comparison it should be noted that watch force of 61 men is employed on the State, War, and Navy building, 24 on the Treasury building, and 20 on the Congressional Library.

The ACTING CHAIRMAN. You need a sufficient force to watch these different buildings and to guard them, and they should be entirely outside the control of the Navy Department?

Admiral SANDS. Yes, sir.

The ACTING CHAIRMAN. And under your control?

Admiral SANDS. Yes, sir; we want men who can tell whether the regulations are being broken and whether proper persons are coming into the grounds. There is not anything in the world to keep improper people out at the present time.

Mr. BUTLER. How many marines did you have before?

Admiral SANDS. About 250.

The following item was missed at the hearing:

Labor at power house: For masons, carpenters, and other mechanics, laborers and attendants, and for care of buildings and grounds, wharves and boats.

An estimate of \$115,384.90 was submitted to the Department, but was reduced \$35,000 by the Secretary before being transmitted to Congress.

The estimate as submitted to the Department was the minimum amount actually needed, and the appropriation of a less amount will result in serious interference with the operation of the academy and a deterioration in public property for want of proper care. The actual operating cost under this head at the present time is \$9,000 per month, with all gangs reduced to the lowest limit and much necessary work actually abandoned. An itemized estimate has been prepared on a basis of the least number of employees necessary to operate the power plant, care for Bancroft Hall, and do the repair work of the academy. Omitting minor quantities, this estimate can be summarized as follows:

Power plant, furnishing steam heat, electric light and power, and including steam fitters and plumbers	\$45,000
Masons, carpenters, plasterers, and painters	40,000
Bancroft Hall (cleaning force) ..	25,000
Miscellaneous ..	5,000
Total	115,000

Of the above items No. 1 represents the present actual running cost. In order not to exceed the appropriations for the current year the other items have been reduced, to the serious detriment of the work.

It will be practically impossible to avoid a deficiency under this head unless the amount asked is allowed.

The ACTING CHAIRMAN. The next change is on page 164, where appears the item "To reimburse appropriation, pay of watchmen, mechanics, and others," \$4,000?

Admiral SANDS. That is for overtime, and was caused by running the summer school. We had to employ people who would otherwise have been discharged.

Professor DODGE. That amount was spent out of this year's appropriation, and it is simply to reimburse the appropriation for this year.

Mr. KITCHIN. It should then go in as a deficiency?

Professor DODGE. No; I think it has been done frequently.

Admiral SANDS. This is so we will not be in the same fix next summer. From July to September we had 300 midshipmen. We employed the men in the summer to do the work of keeping the school open which was heretofore closed. Now, we have as many midshipmen to look out for in the summer as we used to have in the full battalion.

Mr. LILLEY. You have a summer school?

Admiral SANDS. Yes, sir. We had 300 last summer.

Mr. LILLEY. Did you ever have that school before?

Professor DODGE. Not to such an extent.

Admiral SANDS. They have thrown another class on me this year of 200 because of the impossibility of providing practice ships for the entire number of midshipmen.

The ACTING CHAIRMAN. The next change is on 163, "Repairs, Naval Academy," and you ask for an increased appropriation of \$10,000?

Admiral SANDS. Yes, sir; that is simply because we did not have enough money to carry on the work.

During the rebuilding period it has been the practice to make no repairs to the old buildings beyond that actually necessary to keep them in condition for use. Little or nothing has been necessary in the case of the new buildings, but the occupancy of these buildings causes a certain amount of wear which must be made good. Nothing less than the amount asked will be sufficient for the purposes enumerated in the bill, and a failure to keep the buildings in thorough repair from insufficient funds available will result in deterioration that ultimately will cost more to make good. Congress allowed \$20,000 for "Repairs," when the total value of the buildings was not more than \$1,000,000—2 per cent of their value. The amount now asked is three-tenths of 1 per cent of their value, which appears to be sufficient reduction to compensate for the difference between old and new buildings, particularly when the fact is considered that the wear and tear is produced by a largely increased number of people. The appropriations made in the past are of little value for comparison, as the whole establishment is now on a much larger scale as to buildings, roads, walks, sewers, drains, water system, electric lighting, and steam heating plants; equipment of midshipmen's quarters, including the kitchen, laundry, and refrigerating plants; equipment of buildings used for instruction, such as the armory, and the buildings for the departments of seamanship, marine engineering, and physics and chemistry. The personnel has increased, the number of midshipmen under instruction between three and four times and the number of officers, instructors, and other employees in a less degree. This large increase in the quantity of property to be kept in repair necessarily requires an increased appropriation.

The ACTING CHAIRMAN. You think this increase of \$10,000 is absolutely necessary?

Admiral SANDS. Yes, sir. We can not do the work. We submitted that estimate before and you cut it out. The appropriation under this head has been \$31,000 since 1903, but it was reduced to \$20,000 by you at the last session of Congress. It should be restored to \$30,000. The regular appropriation for "Repairs at the Military Academy" is \$40,000.

The next item, "Heating and lighting, Naval Academy," was missed at the hearing, and the following explanation is offered for insertion:

An increase of \$10,000 is asked, and it is further requested that the entire amount be made immediately available. The additional amount is necessary for the purchase of coal, and inasmuch as the coal purchased for this year will probably be insufficient the appropriation should be made immediately available.

It has been possible to meet the shortage in coal for the past two years from the accumulated surplus of previous years, but the supply of coal was exhausted in May, 1906, and it was necessary to burn wood, which had accumulated during the rebuilding. The coal purchased for the present fiscal year may not be sufficient to last

until July 1, 1907, and it is therefore advisable to make the appropriation immediately available.

The expenditures for the fiscal year 1906 were as follows:

Fuel	\$34,531.96
Oil, grease, and waste	1,045.96
Electric lamps, engine metal, carbons, brushes, packing, globes, wire, battery parts, lamp parts, stoker parts, line material, belting, emery, expansion joints, and other materials	4,137.67
Apparatus and tools	266.37
Total	39,981.96

As a matter of comparison it should be noted that the appropriations for fuel, oil, and waste for various Government institutions is as follows:

United States Capitol	\$40,000
Library of Congress	32,500
State, War, and Navy Building	43,000
United States Military Academy	54,000

The heating service of the Naval Academy covers a radius of 2,000 feet, and the lighting service of 3,500 feet.

The ACTING CHAIRMAN. The next item is, "Purchase of azimuth tables, \$700."

Admiral SANDS. That is for the instruction of the midshipmen. The Navy Department has no money to allot for these tables, and so we have to provide them ourselves.

Mr. DAWSON. What is an azimuth table?

Admiral SANDS. It is for the instruction of the midshipmen in navigation.

The ACTING CHAIRMAN. Why do you put that in this way—why not just increase the amount?

Admiral SANDS. We have not got them now; we want the authority. They will be transferred from one class of midshipmen to another as long as they last.

The ACTING CHAIRMAN. The next change is on page 165:

Stores, stationery, periodicals, materials, apparatus, machinery, tools, and fittings, for use in the department of marine engineering and naval construction for purposes of instruction, repairs of apparatus, tools, and machinery, care and cleaning of building and equipment, and for all necessary purposes, fifteen thousand dollars.

Professor DODGE. That should be considered along with the other two items.

The three items in the appropriations for the current year, "Stores, material, and apparatus," have been brought under two items and the wording changed to conform to the necessary uses, with a reduction of \$2,500 in the amount involved. The appropriations heretofore made for the department of marine engineering were as follows:

Apparatus	\$30,000
Material	1,500
Stores	1,000
Total	32,500

In lieu of the above appropriations it is now requested that one appropriation only be made for the department of steam engineering, amounting to \$15,000, and that an appropriation of \$15,000 be made

for the purpose of buying the necessary stores, material, and apparatus for instruction purposes for the other departments, making a total appropriation of \$30,000 instead of \$32,500. The appropriations for the department of marine engineering will be utilized in the purchase of apparatus for the instruction of midshipmen, tools and machinery, and in the purchase of material, stores, etc., required for use in practical drills of the midshipmen in the various shops of this department; also for stores, material, etc., required to keep the equipment of the department up to date and in working order; also for the purchase of material for use in repairs of the steam apparatus of the steam cutters and ships attached to the Naval Academy.

The amount heretofore appropriated, \$2,500, for the purchase of material and stores, has been entirely inadequate and it has been necessary to obtain donations from the Bureau of Steam Engineering in order to carry on the work. There is constantly required, both for repair work done by this department and for the use in the instruction of midshipmen, a considerable quantity of such material as pig iron, brass, copper, pipe, tools for the use of the midshipmen in their practical drills, white pine for the use of the pattern shop, files for use on the bench work of the machine shop, molding sand, coke for the cupola, fuel oil for the brass foundry, lubricating oil for the machinery, and various other materials.

There are no specific appropriations now made for the purchase of materials used in other departments for instruction purposes except the department of physics and chemistry. There should be an appropriation that will enable the purchase of the proper equipment for electrical engineering instruction, as well as for the purchase of supplies in small quantities for the various other departments. The change asked for under this appropriation will enable this to be done without an increase in expense.

MR. BUTLER. And the three items amounted to \$32,500?

PROFESSOR DODGE. Yes, sir.

THE ACTING CHAIRMAN. Then there is an item for three laborers?

PROFESSOR DODGE. That is a new item for the rifle range on the other side of the river. This estimate is based on the employment of three laborers to keep the rifle ranges on the north side of the Severn River (about 40 acres) in condition for use at all times. These ranges have been recently completed at a cost of \$39,499.95.

THE ACTING CHAIRMAN. That makes a saving there of practically only about \$600?

PROFESSOR DODGE. That has no connection with it.

THE ACTING CHAIRMAN. Have you all these things now?

PROFESSOR DODGE. Those are the regular things bought out of the three appropriations. We had before three appropriations, and I have simply written out this item so that we can go on buying exactly what we have bought heretofore, and have reduced it practically from \$30,000 to \$15,000. We have been equipping the department of steam engineering from the appropriation of \$30,000 for "Apparatus," and the work is nearly completed. The reduced amount now asked will be sufficient to pay operating expenses and keep the equipment up to date.

THE ACTING CHAIRMAN. This \$15,000 is for the purchase of apparatus for the other academic departments of the academy?

PROFESSOR DODGE. The item under consideration is for the department of steam engineering. The one following is for the other academic departments.

The ACTING CHAIRMAN. Why not strike out this language, strike it out and put all in one?

PROFESSOR DODGE. I have enumerated some things that were not enumerated in the others, but which we have been purchasing. In changing an appropriation it is always necessary to exercise care in wording it, in order that it may be used as intended by Congress. If items purchased do not come specifically within the wording of an appropriation the auditor may disallow the vouchers drawn in payment for these articles.

If, however, you prefer to adhere to the old wording, I suggest the following as a substitute, which simply combines the three old appropriations, with a decrease in the amount. Strike out the old appropriations, "Stores in the department of steam engineering," "Materials for repairs in steam machinery," and insert, below "For contingencies for the Superintendent of the academy," the following:

* * * stores, materials for repairs in steam machinery, and apparatus for the instruction of midshipmen in the department of marine engineering and naval construction-----	\$15,000
* * * apparatus for the instruction of midshipmen in the various academic departments-----	15,000

The ACTING CHAIRMAN. Under "Public works" there is an appropriation asked of \$380,000?

PROFESSOR DODGE. That is the balance of the authorized amount.

The ACTING CHAIRMAN. Will you need it?

PROFESSOR DODGE. Yes, sir. This carries us to June 30, 1908.

The ACTING CHAIRMAN. You will need it?

PROFESSOR DODGE. Yes, sir.

Thereupon the committee adjourned.



No. 7.

**BUREAU OF YARDS AND DOCKS—STATEMENT OF REAR-ADMIRAL
MORDECAI T. ENDICOTT, CHIEF OF BUREAU.**

CIVIL ESTABLISHMENT.

THURSDAY, December 13, 1906.

The CHAIRMAN. The first is general maintenance of yards and docks, and the language is the same as last year.

Admiral ENDICOTT. I believe so.

The CHAIRMAN. Last year the appropriation was \$850,000, and this year you are asking for \$1,000,000.

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. There is no deficiency this year, I take it.

Admiral ENDICOTT. There will be; I was going to ask Congress for about \$50,000. It is very hard to get along without it. I did not bring the items here, because I did not know that you would go into that.

The CHAIRMAN. Please put that in. One of the largest items is that growing out of the consolidation of power plants. The running of these last year, for fuel, attendance, etc., cost \$355,338.27, and the cost this year will be considerably more. Water cost last year \$94,109.91. Pay of men on leave cost \$58,184.87.

The CHAIRMAN. The consolidation of the power plants is a measure of economy.

Admiral ENDICOTT. Yes; it costs less money, but we have to provide all the coal used in generating power for all the Bureaus, which we did not have to do before and which in itself is a very large item. The expenses of other Bureaus for fuel are reduced accordingly.

The CHAIRMAN. That is an increase of \$150,000.

Admiral ENDICOTT. Yes, and I think it is very necessary.

The CHAIRMAN. Can you not get along with less?

Admiral ENDICOTT. I don't think we could. You know that last year we had to almost close up the yards for several months in order to keep within the appropriation.

The CHAIRMAN. How about this contingent expense of \$30,000?

Admiral ENDICOTT. That is the same as last year, and I do not think it ought to be reduced. I do not always use it up, however.

The CHAIRMAN. Will you furnish a statement showing how that has been expended?

Admiral ENDICOTT. Yes. Sometimes it is not sufficient, which is the case this year, owing to the large expenses necessary at the Pensacola Navy-Yard, resulting from a destructive hurricane.

The CHAIRMAN. Now we will turn to the civil establishment. At Portsmouth, N. H., you ask for one bookkeeper at \$1,200. Is he employed at present?

Admiral ENDICOTT. There is a man who has to do that service, and he is paid out of an appropriation for other work. He ought to be on the civil establishment.

The CHAIRMAN. He would like to get there?

Admiral ENDICOTT. They prefer that; it is a more proper place and a more proper charge.

The CHAIRMAN. Navy-yard, Boston, one electrician, for whom you recommend an increase of \$200.

Admiral ENDICOTT. There is also one at Portsmouth. You will find it running through all of the yards, and it is for the reason that the electricians are not getting adequate pay. Fourteen hundred dollars a year is less than \$5 a day, and this is not a machanic or a machinist, but a trained, educated electrical engineer in charge of these central power plants. He is not getting anything more than the pay of a first-class mechanic. We have lost some, and some others are very much dissatisfied with the pay, so that we are continually appealed to for an increase. I laid the matter before the Secretary this year, and he agreed to approve a maximum of \$1,600, which is about \$5 a day. The present pay is entirely inadequate for the class of service, and I think this ought to be allowed.

The CHAIRMAN. Do you recommend it all through the yards?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. I should think some yards would be more important than others.

Admiral ENDICOTT. Well, I have not recommended it in every yard, because in some places we do not employ a professional electrician, do not need one. But at all of the principal yards these plants are large and important, with fine machinery, and are very valuable. As you are aware, we are doing away entirely with separate power plants at some of the yards, and concentrating all under one plant in yards and docks.

The CHAIRMAN. Is this consolidation fully established at any one yard?

Admiral ENDICOTT. At Portsmouth, N. H., we are doing it. At New York we have taken over a large portion of the load from other departments, but not all of it. At League Island we are handling it all.

Mr. KITCHIN. What are the duties of the ship keeper at Sacket Harbor, N. Y.?

Admiral ENDICOTT. He has charge of the naval station. You know we have a little naval station up there, and he is a care taker. He was called ship keeper, because at the time his employment was authorized there was a ship on the stocks there, but that has been demolished, and there is no ship there now. But there is a property of several acres, some buildings, and materials that belong to the Bureau of Ordnance, a few guns and gun carriages. That is the entire cost of taking care of the place, excepting that I give them a few hundred dollars during the year for the repairs of the buildings and fences.

The CHAIRMAN. How about this messenger for the civil engineer's office at League Island at \$2 per day. Have you a messenger there now?

Admiral ENDICOTT. Not a messenger. The services are performed by a laborer.

The CHAIRMAN. At the Washington Navy-Yard you want one stenographer and clerk at \$3.04 per diem.

Admiral ENDICOTT. In the organization there they have no stenographer except as they employ one from time to time out of some other appropriation. They have a very small force.

Mr. KITCHIN. Wouldn't it be better to put that man on the annual salary list instead of on a per diem? I notice that they have men on the per diem list, and every year they put a few of them on the regular list. If you know that you are going to need him all the year, it seems to me it would be better to put him on the salary list and be done with it.

Admiral ENDICOTT. It suits us just as well; in fact, a little better. But generally Congress has manifested a preference to have per diem employees. His leave is about the same whether he is a per diem or an annual employee.

The CHAIRMAN. At the Norfolk yard you ask for one requisition and time clerk, civil engineer's office, \$1,017.25. Have they a man doing that work there now?

Admiral ENDICOTT. Yes, sir; there is a man doing the work, but there is no man of that rating on that force.

The CHAIRMAN. At New Orleans Naval Station, one electrician at \$1,600. Have you an electrician there now?

Admiral ENDICOTT. We now have a mechanic.

The CHAIRMAN. Is he doing the work?

Admiral ENDICOTT. At present; but they are building up a power plant there, and this was with a view of having a professional electrical engineer there.

The CHAIRMAN. One writer and requisition clerk, \$950. You have one now, have you not?

Admiral ENDICOTT. Yes, we have out of another appropriation.

The CHAIRMAN. We will now go to the Mare Island Navy-Yard.

Admiral ENDICOTT. There is a change in the electrician there. He is now a laborer taken out of the gang.

The CHAIRMAN. At Cavite there is one clerk increased \$200.

Admiral ENDICOTT. He is an American. The clerk in the office of the yards and docks is the chief clerk, and we pay them all the same amount, \$1,400, or endeavor to. He has been receiving \$1,200. That is the cause of the increase there.

The CHAIRMAN. Now, as to the navy-yard at Charleston, S. C., commandant's office?

Admiral ENDICOTT. We have no civil establishment there; we have never appropriated for it yet. We have to get the work done and pay for it out of appropriations for public improvements. The stenographer, writer, mail messenger, and janitor are employees that will be necessary there right along every year, so I think they ought to be on the civil establishment.

The CHAIRMAN. Why do you call them "commandant's office?"

Admiral ENDICOTT. That is put in there, but you can leave out those two words if you wish, although they show to you what we want them for. I furnish clerical assistance for the commandant's office, the civil engineer's office, and the office of the captain of the yard.

The CHAIRMAN. Now as to the civil engineer's office?

Admiral ENDICOTT. That is at Charleston. Those are necessary employees.

The CHAIRMAN. Is that why you make a distinction?

Admiral ENDICOTT. Yes, sir. Under this you know where the money is going, but sometimes the commandant raids the other offices and takes them out.

The CHAIRMAN. Those will be necessary right along?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. The next is naval station at Guantanamo, Cuba. We haven't much down there yet?

Admiral ENDICOTT. No, we haven't much, and we have no civil establishment; but those employees are necessary, and for that reason I add them to this list.

The CHAIRMAN. What have you done down there, anything at all?

Admiral ENDICOTT. They have commenced the dry dock, have used up the money, and stopped. We are doing something in the way of water supply, building a quay wall, and doing some dredging on funds already appropriated, but that work will have to stop, because of exhaustion of funds, probably in a month or two.

The CHAIRMAN. Are any buildings up?

Admiral ENDICOTT. No; only a few temporary buildings. You have not yet appropriated for any large buildings, and we are closing work up there until you appropriate more money.

The CHAIRMAN. The next is the naval station, Olongapo, P. I.

Admiral ENDICOTT. There is no civil establishment there, but we are doing a great deal of work, and that force is necessary if the station is maintained. You have appropriated for public works from time to time, and made a small appropriation last year. You will notice that that is not a large amount. Excepting for the chief clerk, draftsman, and one foreman, the others are native employees, to whom we pay small salaries.

The CHAIRMAN. You are employing man there now?

Admiral ENDICOTT. Yes; we are doing a good deal of work there. We are putting up a coaling plant, to cost half a million dollars.

The CHAIRMAN. At Tutuila you ask for one clerk, at \$1,000.

Admiral ENDICOTT. We have to pay him out of my maintenance fund. We will always have a clerk there, and for that reason I suggest putting him on the civil establishment.

SATURDAY, *December 15, 1906.*

The committee this day met, Hon. George E. Foss in the chair.

PUBLIC WORKS.

STATEMENT OF REAR-ADMIRAL M. E. ENDICOTT, CHIEF BUREAU OF YARDS AND DOCKS—Continued.

The CHAIRMAN. The first item is navy-yard, Portsmouth, N. H., and the estimates submitted amount to \$1,137,900. You are asking for an appropriation for railroad and rolling stock every year. Can not that item be left out?

Admiral ENDICOTT. It can be reduced to \$2,000.

The CHAIRMAN. The next item is sewer system extension, \$5,000?

Admiral ENDICOTT. That can be reduced to \$2,000.

The CHAIRMAN. The next item is quay wall, to extend, \$50,000?

Admiral ENDICOTT. We ought to have that appropriation; it is important work. I think you can make it \$25,000. It is very important that the quay wall there should be extended.

The CHAIRMAN. Are you using all of it all the time?

Admiral ENDICOTT. All that borders deep water. Some portions the ships can not get to because it was built many years ago in shallow water.

The CHAIRMAN. It is a matter that you can build fast or slow?

Admiral ENDICOTT. Yes, sir. Suppose you make it \$20,000.

The CHAIRMAN. The next item is grading, to continue, \$30,000?

Admiral ENDICOTT. That item can be made \$15,000.

The CHAIRMAN. Will we have to provide appropriations for grading there every year?

Admiral ENDICOTT. You will for a few years. The surface is above the grade, and it is rock material. It is rather expensive to do the work. We are now grading in the vicinity of the new dry dock and the buildings for steam engineering.

The CHAIRMAN. It seems to me that you ought to do a great deal of grading for \$10,000.

Admiral ENDICOTT. It is rock, and requires blasting. It is a good deal above the grade, and is expensive.

The CHAIRMAN. You think that \$15,000 should be appropriated?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. The next item is central power-plant extension, \$60,000?

Admiral ENDICOTT. We need all of that amount.

The CHAIRMAN. Will that complete it?

Admiral ENDICOTT. For the present; yes, sir. For a few years that will furnish all the power necessary.

Mr. KITCHIN. That item had better be made to read "to complete?"

Admiral ENDICOTT. You can call it "to complete."

The CHAIRMAN. The next item is pattern shop for steam engineering, to complete, \$61,200. Did we not make an appropriation for that last year?

Admiral ENDICOTT. You allowed about \$39,000, and you said "towards" it.

The CHAIRMAN. Was that last year?

Admiral ENDICOTT. The year before. But you did not limit the cost in any way. You said "towards," but you did not say what the ultimate cost should be.

The CHAIRMAN. Have you done anything?

Admiral ENDICOTT. Nothing but make the plans. It is a building that is going to cost about \$100,000.

Mr. KITCHIN. How much was appropriated two years ago?

Admiral ENDICOTT. I think \$39,000.

Mr. KITCHIN. Nothing done yet but the plans?

Admiral ENDICOTT. That is all. We found that we could not put up anything on the scale desired for \$39,000 that would be useful, and therefore it was thought best to wait.

Mr. KITCHIN. Is the \$39,000 still at your disposal?

Admiral ENDICOTT. Yes, sir. That does not lapse into the Treasury at the end of the fiscal year. If the money is appropriated for a public improvement it holds.

The CHAIRMAN. If you do not get this appropriation this year you will not go ahead?

Admiral ENDICOTT. No, sir.

The CHAIRMAN. Are not the shops sufficient for steam engineering?

Admiral ENDICOTT. No, sir; they are not. It was \$40,000 that you appropriated for the pattern shop. Steam engineering is very badly off, and they have been coming to us with estimates for several years for that plant. You have authorized two or three of the buildings.

The CHAIRMAN. The next item is "Blasting in front of quay wall," \$50,000.

Admiral ENDICOTT. That is very important in order to get a proper depth for handling the heavy-draft vessels in front of the new dry dock.

The CHAIRMAN. What is the depth? I thought we had sufficient depth.

Admiral ENDICOTT. We have in the harbor, but not right in front of the dry dock. It is one of the deepest harbors on the coast.

The CHAIRMAN. I thought that was one of the great arguments—always used—that you had plenty of water and did not have to dredge.

Admiral ENDICOTT. Depth once made is practically permanent, because there is not any silt; but this is the original rock.

The CHAIRMAN. Right in front of the dry dock?

Admiral ENDICOTT. Yes, sir; to one side.

The CHAIRMAN. Have you used the dry dock?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. Can you get a big battle ship in?

Admiral ENDICOTT. Yes, sir. It lies right in front of the quay wall. You can not lay a vessel up there if she draws 26 or 27 feet, because there is danger of grounding and injuring her.

The CHAIRMAN. If she draws less you can?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. There are other places along the quay wall where you can put the vessels?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. There is plenty of space?

Admiral ENDICOTT. No, sir. This is right on the quay wall adjoining the dry dock, where you want to moor a vessel before taking it into the dry dock. I think it is more important than a great many of these other things.

The CHAIRMAN. More important than the new buildings?

Admiral ENDICOTT. It is more important than most of them. When you come to the foundry for steam engineering, that is very important.

The CHAIRMAN. The next item is "Track for forty-ton crane, extension, forty-six thousand eight hundred dollars."

Admiral ENDICOTT. The track extends now only around the dry dock, and we want to extend it along the quay wall.

The CHAIRMAN. Is it necessary this year?

Admiral ENDICOTT. It is important, not absolutely necessary.

The CHAIRMAN. Then we can leave it out this year?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. The next item is "Foundry (to cost two hundred and twenty-four thousand three hundred dollars), one hundred thousand dollars."

Admiral ENDICOTT. Steam engineering has no foundry there. The old foundry was condemned and demolished. It was an old wooden affair, a fire trap. They have absolutely no foundry to-day. I think that is the most important of the buildings which steam engineering asks for.

The CHAIRMAN. Has any other department a foundry?

Admiral ENDICOTT. Construction and repair has a foundry.

The CHAIRMAN. If we should have a consolidation of shops for all the departments there would be no need for more than one foundry in the yard?

Admiral ENDICOTT. Then there would be but one. Whenever you get to that it lops off.

The CHAIRMAN. The next item is, "Copper and blacksmith shop for steam engineering (to cost one hundred and twenty thousand dollars) sixty thousand dollars." Do you regard that as absolutely essential during this coming year?

Admiral ENDICOTT. I do not think it is absolutely essential at the present time. They have a small space in a shop for that purpose now, but it is inadequate and a poor one. It is not what it should be by any means.

The CHAIRMAN. The next item is, "Erecting shop for steam engineering, eighty-five thousand two hundred dollars."

Admiral ENDICOTT. That is for steam engineering. I think four are asked for especially by the chief of engineers and have been approved by Mr. Bonaparte. I think that is one of the least important shops for steam engineering.

The CHAIRMAN. You regard the foundry as the most important of any, if we keep up the present system?

Admiral ENDICOTT. Yes, sir; if you do not consolidate.

The CHAIRMAN. Do you think it would be advisable to consolidate the shops?

Admiral ENDICOTT. I think it ought to be brought about within certain limits. I think there are some things which could not be very well consolidated, but many could be consolidated so that the work of all the bureaus of that particular class could be consolidated in one building.

The CHAIRMAN. Take the matter of the foundry, do you regard that as a matter that each bureau should have its own foundry?

Admiral ENDICOTT. No; I think one foundry could do the work for all the bureaus.

The CHAIRMAN. What other line is there where they could have one common shop?

Admiral ENDICOTT. One blacksmith shop could manage the work of all the bureaus.

The CHAIRMAN. And one paint shop?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. What else?

Admiral ENDICOTT. A copper shop.

Mr. KITCHIN. I believe they have practically consolidated the power plants?

Admiral ENDICOTT. Yes, sir. They are being consolidated now. Some have been consolidated. I think one pattern shop would be sufficient for all the different departments.

The CHAIRMAN. The next item is, "Chapel and recreation hall, fifty thousand dollars."

Admiral ENDICOTT. There is nothing of that kind in the yard and there are a great many men there. You know we are building a naval prison, and we have a prison ship, and we have a large force of marines. There is no recreation hall and no chapel. One has been recommended for two or three years in succession, and approved by the Secretary, but you have not authorized it.

Mr. KITCHIN. Is it the purpose of this appropriation to have only one hall or building?

Admiral ENDICOTT. One building, but it will be divided for recreation and for religious services. It is not proposed that one room shall answer for both purposes.

Mr. KITCHIN. Will the recreation hall be fixed up with gymnastic appliances?

Admiral ENDICOTT. Yes, sir; and a reading room, in order to give the sailors and others something to interest them in the yard, rather than to go across town and lie around the grogshops.

The CHAIRMAN. Instead of taking up each item I wish you would just indicate to us those which you think are the most important, and then we will take them up.

Admiral ENDICOTT. Yes, sir. I think the naval prison administration building, to complete, \$10,000, is one of the most important.

The CHAIRMAN. What else?

Admiral ENDICOTT. Then the additional cells, elevator, and fittings for the naval prison, \$75,000.

Mr. KITCHIN. How many cells are expected to be provided under this item?

Admiral ENDICOTT. With these additional cells which can be put up with \$75,000, I think it makes 320.

Mr. KITCHIN. Do you know how many we have there now?

Admiral ENDICOTT. I think we have about 160.

Mr. KITCHIN. These cells cost about \$1,000 apiece?

Admiral ENDICOTT. That includes the heating and lighting and the plumbing. Every one has a water-closet and locking device and ventilation, and all that sort of thing. Then there are some elevators in connection with it also.

The CHAIRMAN. What other items do you think are important?

Admiral ENDICOTT. I think the \$15,000 for the coaling plant is an important item. That plant was very badly injured by fire, and it is necessary to make some repairs to it. I think provision ought to be made for the purchase of a water supply. The supply in the yard is inadequate. We have been experimenting in the way of sinking wells to see if we could get a supply and have failed. We depend on cisterns and wells, and we have had to connect with a system outside and buy water. It is costing us, I think, in the neighborhood of twelve to thirteen thousand dollars per year to purchase water, and the whole plant can be bought for \$170,000.

The CHAIRMAN. That is from an estate?

Admiral ENDICOTT. Yes, sir; it belongs to the Frank Jones estate. I understand now the price they will take is \$170,000.

The CHAIRMAN. They may take less if we wait a little longer.

Admiral ENDICOTT. I do not know. I understand there are other people looking at it, but they prefer to sell to the Government.

The CHAIRMAN. Are those all the important items for this year?

Admiral ENDICOTT. Those are the most important. There are several estimates for buildings in connection with the naval prison, the administration of which comes under the Judge Advocate, and for which he is extremely anxious, and which Mr. Bonaparte has approved. It includes a barracks for marines to cost \$105,000, quarters for officers and naval prison furniture and fittings, \$8,500, a cooking plant and baking plant. Those things should be provided to make that plant complete. Mr. Bonaparte thought them of great importance.

Mr. KITCHIN. What is the necessity for the naval prison barracks?

Admiral ENDICOTT. It is for barracks for marines who will be stationed there as guards.

Mr. KITCHIN. What accommodations have they for those marines now?

Admiral ENDICOTT. We have accommodations inside the present building for a small squad, just sufficient for a guard.

The CHAIRMAN. They want a big barracks right next to the prison?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. The next item is the navy yard, Boston, Mass., and this year you are asking for \$525,000. Last year it was a good deal less. Now, please point out briefly what you regard as the most important and necessary items for the coming year?

Admiral ENDICOTT. I think the first item on the list, paving, is an important item. If you can not spare \$20,000 give us \$10,000. I have explained several times that that yard was in a wretched condition, practically nothing but a few cobblestone pavements a few years ago. There should be a water-closet between the two dry docks. We have completed a new dry dock, and when the two docks are occupied there may be a thousand men on those ships.

The CHAIRMAN. Does it cost \$15,000?

Admiral ENDICOTT. To provide for a thousand men requires large accommodations.

The CHAIRMAN. The next item is "Shears on pier numbered six, forty-three thousand dollars." Can that go over this present year?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. What else?

Admiral ENDICOTT. You mean the items we consider the most important?

The CHAIRMAN. Yes, sir.

Admiral ENDICOTT. The "third floor, building No. 107, \$6,000," is for putting a third floor in the yard and docks shop, which I think important. I think the electrical plant extension of \$25,000 is important, and the heating plant extensions. The electrical plant is for wiring buildings, connecting up the new power house, etc., and the heating plant is to connect nine different buildings which are now heated by different plants. I think it is economy to connect these buildings with the central heating plant. We need some railroad rolling stock, \$3,000; telephone system extension, \$1,000; and the railroad system extension, \$2,000.

I think the repairs to dry dock No. 1, to cost \$15,000, ought to be allowed at this time. That has been asked for repeatedly. The dock has been in a leaking condition for a great many years. It is the old stone dock, now about 70 years old. It is getting a little worse all the time. If the masonry at the entrance is not taken up and relaid there

may be some accident sometime. The item to complete building No. 108, \$5,000—that is, the new power house—I think that that is necessary; also putting concrete floors in the dynamo room and boiler room and making a few other improvements, and the salt-water system for flushing dry dock No. 2, \$2,500, ought to be installed. I think the extension to the coal plant, to cost \$7,000, ought to be included. It is for the purpose of providing apparatus for hoisting, which will enable us to coal vessels much more rapidly.

Mr. ROBERTS. What is building No. 42?

Admiral ENDICOTT. That is the steam engineering building.

Mr. ROBERTS. What are those improvements?

Admiral ENDICOTT. You mean to cost \$9,000?

Mr. ROBERTS. Yes, sir.

Admiral ENDICOTT. It is for an elevator and for extending the lighting and heating system into the coppersmith-shop portion. That is very desirable. I passed it over for a moment in running down the list.

Mr. ROBERTS. What is building No. 63?

Admiral ENDICOTT. That is supplies and accounts timber shed. I think the ropewalk, \$10,000, is very important. That yard is pressed very much in the manufacture of rope.

Mr. KITCHIN. Why do they call it a ropewalk?

Admiral ENDICOTT. That was the original name when they had those long buildings in the shape of long halls.

Mr. ROBERTS. It is what they always call a building where they made rope.

The CHAIRMAN. What other items do you consider as important?

Admiral ENDICOTT. I think the improvements to the naval prison are important, \$2,500. I also think the starting of the new dry dock is important.

The CHAIRMAN. How many docks have you there now?

Admiral ENDICOTT. Two. There is a fine site for another dock.

Mr. ROBERTS. One is a little dock?

Admiral ENDICOTT. Yes, sir; 70 years old, and one has recently been completed. This would be a shorter dock than the one recently built, which is 750 feet long, and it would increase the docking facilities on the Atlantic coast very much. The same plant which furnishes the power for operating the other docks would be used for this one.

The CHAIRMAN. How many docks are you asking for this year at all the yards?

Admiral ENDICOTT. I asked for four or five, but I think the Secretary cut my estimate down, one for Boston, two for Norfolk, and one floating dry dock.

Mr. KITCHIN. What has become of the Pensacola dock? Last year there was a great deal of testimony as to the importance of that dock.

Admiral ENDICOTT. That is not in the bill this year. The Secretary cut it out. I asked for it, but he cut it out. We lost one dry dock down there in the hurricane. That was a small wooden one which only cost about \$100,000. It was so badly demolished that we did not think it was worth while to repair it.

The CHAIRMAN. I wish you would put in a statement of the number of dry docks in use and how much they have been used this year.

Mr. KITCHIN. I hope you will also inform us in that statement as to how many docks you now have and where they are located, how

many are completed, and how many have been authorized but not completed.

Admiral ENDICOTT. I will send you a little table. There are fifteen now in use and seven in different stages of completion.

United States dry docks.

Location.	Type.	Completed.	Remarks.
Portsmouth, N. H.	Floating.	1851	Unserviceable.
Do.	Graving.	1906	
Boston, Mass.	do.	1833	
Do.	do.	1906	Under construction.
New York, N. Y.	do.	1851	
Do.	do.	1890	
Do.	do.	1897	
Do.	do.	1891	
League Island, Pa.	do.	1834	Do.
Do.	do.	1889	Do.
Norfolk, Va.	do.	1898	Unserviceable.
Do.	do.	1898	
Charleston, S. C.	do.	1902	Under construction.
Pensacola, Fla.	Graving.	1891	
Do.	do.	1892	Do.
New Orleans, La.	do.	1893	Do.
Mare Island, Cal.	Floating.	1905	
Do.	Graving.	1905	Do.
Puget Sound, Wash.	do.	1905	Do.
Do.	do.	1905	Do.
Pollock, P. I.	do.	1905	Do.
Olongapo, P. I.	Floating.	1905	Do.
Guantanamo, Cuba.	Graving.	1905	Do.

^a Date of purchase.

^b Acquired.

We have asked for a thousand dollars for transferring the pillar crane to the timber basin. The crane which we have in another part of the yard is not very much needed there but is very much needed at the timber basin and it will cost a thousand dollars to transfer it.

I think the rebuilding and enlarging of boiler-shop portion of building No. 42 is very important. We have not room to do the boiler work that is required in that yard.

The CHAIRMAN. That is practically a new building?

Admiral ENDICOTT. It practically extends one wing of the building.

The CHAIRMAN. How many different bureaus have boiler shops?

Admiral ENDICOTT. This is the only one in the yard.

The CHAIRMAN. Is that something that could be consolidated?

Admiral ENDICOTT. It is the only one in the yard of any account. That is, steam engineering.

The CHAIRMAN. They can get along another year without a new shop?

Admiral ENDICOTT. I suppose they could. Steam Engineer Rae dwells on its importance very much.

Mr. ROBERTS. Do you know whether or not they have authorized the building of boilers for one of the ships—the *New York*—in that yard?

Admiral ENDICOTT. I do not know. They complain that they can not handle the work of that class at that yard. They may be building boilers for vessels on the foreign stations. If a vessel is coming from a foreign station for new boilers, they issue an order to some navy-yard to get the boilers ready. Boston is not now fitted to handle work of that kind to any extent.

Mr. ROBERTS. About the naval prison at Portsmouth; perhaps you have gone all over that. How is that getting along, and when are they going to get into it?

Admiral ENDICOTT. It is practically completed so far as the present contracts go; that is, it will be completed the early part of January. The contractor was in my office this morning and so stated.

Mr. ROBERTS. And it will be ready to take in prisoners?

Admiral ENDICOTT. Yes, sir; as soon as he gets out. The building was designed to be self-contained. There were to be quarters for a small guard and for the servants, with apartments in the basement for the cooking and the storing of provisions, etc., but they are asking for separate buildings outside; that is, the judge-advocate is asking for it.

Mr. ROBERTS. I am more particularly interested in the prison itself, because we want to get the prison out of the Boston yard as soon as possible, as they are occupying space that is badly needed by supplies.

Mr. LOUD. How many foundries are there in the Boston yard?

Admiral ENDICOTT. There are two: Steam engineering and construction and repair.

Mr. LOUD. Is that all?

Admiral ENDICOTT. Yes, sir; I do not think equipment has a foundry.

Mr. LOUD. What is the reason those should not be consolidated?

Admiral ENDICOTT. I think the foundries could be consolidated at any yard. I do not see why one department could not do the casting for all the departments.

Mr. LOUD. Is there any logical reason why they should be separate?

Admiral ENDICOTT. No, sir.

Mr. LOUD. Is it more expensive to run them as separate establishments?

Admiral ENDICOTT. Yes, sir; I think it is. I stated a moment ago that there used to be a foundry in the Bureau of Yards and Docks at some of the yards, but we have abandoned ours.

The CHAIRMAN. Which department has the more use for a foundry, construction and repair or steam engineering?

Admiral ENDICOTT. I think steam engineering.

The CHAIRMAN. The next item is, Navy-yard, New York, N. Y. Please point out the more important items.

Admiral ENDICOTT. I think the electric plant extensions, the heating system extensions, and the underground conduit extensions are all important. They are all associated in this matter of the distribution of power to other bureaus.

Mr. KITCHIN. Is this amount of money necessary for each one of them?

Admiral ENDICOTT. I think it is. There has been approved only about half of what they asked at the yard. The underground conduit could be reduced to \$15,000.

Mr. KITCHIN. It is \$15,000 in the bill.

Admiral ENDICOTT. The Secretary must have cut it down. I have no note in regard to it.

The CHAIRMAN. What other items are there?

Admiral ENDICOTT. I think the \$7,000 for the electric motors for pump well valves is important. It is to operate them by electricity.

I think the item for electric elevators, \$10,000, is important. The elevators are in the supplies and accounts storehouse, and it is for the purpose of changing them into electric elevators. They are now operated by steam. There is a little boiler plant that is run exclusively for operating the elevators, and we want to get that out of use, and if we can turn the steam elevators into electric elevators we can get rid of it. The \$140,000 for the central power plant is important.

The CHAIRMAN. Have you spent anything on the central power plant?

Admiral ENDICOTT. Yes, sir; we have spent about \$150,000.

The CHAIRMAN. How much more have you got to spend?

Admiral ENDICOTT. This will equip it for a few years. We are still within the estimate made by the Boston experts who went over the yard.

The CHAIRMAN. Do you find that it is going to work an economy?

Admiral ENDICOTT. Yes, sir; in labor and attendants and in the consumption of fuel. The additional story to building numbered 31, that is the clothing factory—they do an immense amount of work in that line and they want to put another story on one of those buildings. I think that is the most important.

The CHAIRMAN. Is that a very large building?

Admiral ENDICOTT. Yes, sir. They handle practically all that work for the entire Navy at that yard.

The CHAIRMAN. The next item is navy-yard, League Island, Pa. Please point out the important items.

Admiral ENDICOTT. I think the storehouse for ordnance for storage of ordnance stores is very important, \$46,000.

Mr. KITCHIN. Is this at League Island?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. Have they not a storehouse there now?

Admiral ENDICOTT. They have a shop which they use for storage to some extent.

The CHAIRMAN. It seems to me I saw several little storehouses for ordnance down below. What other items?

Admiral ENDICOTT. Thirty-one thousand dollars for a storehouse for lumber is important. We have been asking for that several years.

The CHAIRMAN. Have you not any place to store it now?

Admiral ENDICOTT. No, sir; it is stored out in the open.

The CHAIRMAN. Is that for your Bureau?

Admiral ENDICOTT. No, sir; it is for supplies and accounts.

Mr. LILLEY. What do you do with lumber there?

Admiral ENDICOTT. Store it out in the open.

Mr. LILLEY. No; I mean what uses do you have for lumber; there has never been a ship repaired or built there?

Admiral ENDICOTT. Yes, sir; vessels come there for repair.

The CHAIRMAN. Please indicate what other items you think are important.

Admiral ENDICOTT. To continue retaining wall about reserve basin, \$50,000; I think that is important. That is a portion of the fresh-water basin.

Mr. KITCHIN. You ask for \$50,000?

Admiral ENDICOTT. Yes, sir; they asked for \$150,000 at the yard.

The CHAIRMAN. How much is it going to cost to finish it?

Admiral ENDICOTT. Considerable money. It is to be a very large basin. It will cost about \$2,000,000 to complete.

The CHAIRMAN. Do you use it a great deal?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. Do many ships go there?

Admiral ENDICOTT. Yes, sir. It is the principal place where vessels are stored in ordinary. Then the "sea wall extension" is important. That is to extend along the front, west of the new dry dock. And also the item for "berths for receiving ships, \$25,500." There are two receiving ships there now, and they occupy space right in the working front of the yard. We should also have something for grading and paving. You might make it something smaller—\$15,000. I think the electric elevators should be appropriated for. They are for the general storehouse for supplies and accounts and the yards and docks shop. There is an item of \$100,000 for a hydraulic dredge. Before that water front is completed, and this fresh-water basin is completed, there will be about 4,000,000 cubic yards of material to be excavated. It is costing us too much. There is an agreement or combination or an association among the dredge contractors, and we are paying about 22 cents a yard for that material. I think that is fully 50 per cent too much, and sometimes I think it could be done for less than half.

Mr. ROBERTS. How do they dispose of the material they take out?

Admiral ENDICOTT. At present they are using it for filling in.

Mr. ROBERTS. How is it handled?

Admiral ENDICOTT. By the hydraulic system.

Mr. ROBERTS. Do they run it off in pipes?

Admiral ENDICOTT. Yes, sir. That is one of the cheapest ways of handling material. I have rejected bids and invited them again, but I can not get the price down to a reasonable amount.

Mr. ROBERTS. How much has already been spent for dredging?

Admiral ENDICOTT. I gave you a statement two years ago. I do not know just what it is now. A great deal has been spent there.

Mr. ROBERTS. What proportion of the whole dredging has been done?

Admiral ENDICOTT. I suppose two-thirds of the whole.

Mr. ROBERTS. About 8,000,000 yards?

Admiral ENDICOTT. I think there has been that much.

Mr. ROBERTS. And about 4,000,000 yards more?

Admiral ENDICOTT. Yes, sir. A great deal of the filling was done by the War Department. All the material removed from the upper Delaware when they removed Smith Island came down and was used for filling in.

Mr. ROBERTS. You think it would be economy to buy a dredge?

Admiral ENDICOTT. Yes, sir.

Mr. LILLEY. We have paid the contractors for doing two-thirds of the work and now we buy a dredge?

Admiral ENDICOTT. Some of this work was done for 11 cents a yard. That was the softer portion of it; but for three years they have put up the price. The War Department has had to do the same thing. They have had to buy dredges and operate them themselves, because of the high prices bid by contractors at some points.

Mr. LOUD. If they thought the Government was going to build a

dredge, and that they could not get over 11 cents, do you not suppose that they would come to time?

Admiral ENDICOTT. This we are now contracting for at 22 cents could not be done for 11 cents, because it is hard material; but I do not think it should be over 16 or 17 cents.

Mr. LILLEY. Would there be any use for the dredge after you got this job done?

Admiral ENDICOTT. Dredging from time to time is necessary at all of the navy-yards.

Mr. LILLEY. Can you move it around?

Admiral ENDICOTT. Yes, sir; it can be towed anywhere.

Mr. LILLEY. We do not own a dredge anywhere?

Admiral ENDICOTT. We have a little one at Pensacola. It belongs to the War Department and we borrowed it.

Mr. LOUD. What became of the dredge at Charleston?

Admiral ENDICOTT. That belongs to the War Department.

Mr. LOUD. Where is that?

Admiral ENDICOTT. It is there. They expect to continue to dredge in Charleston Harbor and the dredge is stationed there permanently. The city of Philadelphia has had the same trouble with the contractors and during the last fall they have rejected bids. The contractors practically control the price. They divide up the area along the coast among themselves.

Mr. KITCHIN. Please give us an estimate of the total cost of the retaining wall and the sea wall when completed.

Admiral ENDICOTT. Around the reserve basin?

Mr. KITCHIN. Yes, sir.

Admiral ENDICOTT. The cost of the wall will be about \$640,000. The piers will cost about \$300,000. There is an estimate for the extension of the reserve basin to continue dredging in case you do not authorize the purchase of the dredge.

Mr. LILLEY. Have you immediate use for this basin?

Admiral ENDICOTT. It is being used now.

Mr. LILLEY. Could you not use the one at Portsmouth or some other place?

Admiral ENDICOTT. There is no fresh-water basin in any other navy-yard.

Mr. LILLEY. None at Portsmouth?

Admiral ENDICOTT. No, sir; all salt water.

Mr. LILLEY. I thought it was right on the river?

Admiral ENDICOTT. It is; but it is right near the coast, and the water is salt. Then, we want \$100,000 for the power plant.

The CHAIRMAN. Have you expended any of the appropriation heretofore made for that purpose?

Admiral ENDICOTT. Yes, sir; but that much is needed. Another important item is for the extension of piers on the water front—\$120,000—adjacent to the new dry dock. That is an important item.

Mr. KITCHIN. Please embody in your statement the total cost of these various navy-yards or the total amount expended on them up to the present time.

Admiral ENDICOTT. The cost to date?

Mr. KITCHIN. Yes, sir; of the various navy-yards.

Mr. ROBERTS. Did we not have that last year?

Admiral ENDICOTT. I publish in my annual report every year the appraised value of the navy-yards, but that does not represent the original cost.

Mr. LILLEY. Is that the original cost, minus a certain amount charged for depreciation?

Admiral ENDICOTT. Yes, sir. If a building is twenty-five or thirty years old we put a low estimate on its value. That figures up to about \$82,000,000 or \$83,000,000.

Mr. KITCHIN. Probably that would be a satisfactory answer to my question.

Admiral ENDICOTT. My report for this year will contain that data brought up to date, that is a little more, but I do not think it exceeds \$85,000,000.

Mr. LOUD. I would very much like to know what has gone into the Boston yard since it went into commission?

Admiral ENDICOTT. How much has gone in since it was opened?

Mr. LOUD. Yes, sir.

Admiral ENDICOTT. We can tell that readily. It is \$12,455,069.72.

The CHAIRMAN. The next item is navy-yard, Washington, D. C. Please point out the important items.

Admiral ENDICOTT. Paving and grading are important. That is for the new portion of the yard, and the purchase of additional land which was up before you last year, I think, is a very important matter. I would like to show you why I think it is important. It is connected with this matter of the abolition of grade crossings in the city of Washington. The law requires that all grade crossings shall be abolished by the 1st of July, 1908, and the branch from the Pennsylvania Railroad which comes into the navy-yard crosses all the streets at grade, and they have to be abolished in some way. They would have to tunnel or build an elevated railroad if the present line be retained, which would be very costly and very inconvenient to us, but it has been proposed to abandon the present branch to the navy-yard and to put in a switch up near where the bridge crosses the Eastern Branch and come down along the water front to the navy-yard on the east. They are coming now down here [indicating on map]. Our yard is here [indicating on map] and here all the sidetracks are. The switching yard ought to be on the eastern side when this change is made by the Pennsylvania Railroad, and we need to purchase two squares here [indicating on map] on the water front for a yard for sidetracks and switches.

The CHAIRMAN. A railroad yard?

Admiral ENDICOTT. Yes, sir; so that when they bring loaded cars to us they can put them in the yard and they can lie there until we take them with our locomotives and haul them to the storehouse or shops where they are to go and empty them. They are then brought back here [indicating on map] for the railroad to take them away.

The CHAIRMAN. Would not the railroad do some of that for the business they get from the Government?

Admiral ENDICOTT. They will build the branch and obtain the right of way along the water front without any cost to us if we will provide the yard and make the changes within our limits.

The CHAIRMAN. How much land can you get for \$161,872?

Admiral ENDICOTT. A little more than 5 acres. It is water front.

It is the most valuable land, of course. That would be an average of about 70 cents per square foot.

The CHAIRMAN. You can buy land for 70 cents up in the finest residential part of the District, up on the hill where they are just opening it, just off of Massachusetts avenue.

Mr. LILLEY. What do they ask for that land a square foot?

Admiral ENDICOTT. Seventy cents.

Mr. LILLEY. Do they know that we have to have it?

Admiral ENDICOTT. This is on the water front. We do not necessarily have to pay that, but that is put down as an estimate of the outside cost.

The CHAIRMAN. Who owns that land?

Admiral ENDICOTT. I think that land is owned or controlled by real estate men. There is one man who owns a great deal of land there. I think his name is Weller. He owns a portion of it.

Mr. ROBERTS. Do you know that you can buy those two blocks for \$161,000?

Admiral ENDICOTT. They say they will sell it for that amount.

Mr. LILLEY. I guess there is no trouble about buying it; it is probably worth about \$30,000. It is a lot of wild land, as I remember it.

The CHAIRMAN. Are there any houses on the land?

Admiral ENDICOTT. There are small improvements which do not amount to much. The improvements are estimated at \$3,000. The procedure has been to place the limit of cost and authorize the Secretary to purchase by condemnation if he can not get it at a reasonable price.

The CHAIRMAN. What other items do you regard as important this coming year?

Admiral ENDICOTT. Next to the railroad item, the railroad bridges and tracks, cost \$40,000.

The CHAIRMAN. Why do you regard that as important?

Admiral ENDICOTT. Because we have got to do something to make a new connection with the Pennsylvania Railroad. The present connection with the Pennsylvania Railroad has to be abolished.

The CHAIRMAN. When will it have to be abolished?

Admiral ENDICOTT. The law requires that it shall be done by the 1st of July, 1908. Now, if they come in on the east of this new branch, whether we buy this additional land or not, we have to change the tracks inside the yard and we have to build a bridge over a marine railway and slip at that portion of the yard in order to connect with that track.

Mr. ROBERTS. That has to be done anyway?

Admiral ENDICOTT. Yes, sir; or else we lose the connection with the Pennsylvania Railroad and would have to depend upon hauling by teams. I do not know how they could get a gun in there. Guns come by rail, and also coal and forgings and everything that that navy-yard buys; and some things we ship from the yard by the Pennsylvania Railroad.

Mr. ROBERTS. It would be more expensive if we handled it by teams?

Admiral ENDICOTT. Yes, sir; it would be impracticable. We have got to get ready by the 1st of July, 1908; otherwise, the Government is standing in the way. I suppose the railroad would tear up their branch; they would have to under the law.

The CHAIRMAN. Does that cover about all?

Admiral ENDICOTT. No, sir; the new foundry is very necessary, costing \$100,000.

Mr. LOUD. We went into that very fully last year?

Admiral ENDICOTT. Yes, sir. Most of these buildings have been before you for two or three years. All these buildings are for the Bureau of Ordnance, Admiral Mason.

Mr. LOUD. Is it not possible to put a foundry there that will take care of the smaller castings and still retain the present foundry, rather than to go ahead and build a new one simply because that is not quite large enough?

Admiral ENDICOTT. Build one for smaller work on a smaller scale?

Mr. LOUD. No; take out all the smaller castings which take up so much storeroom, and that will give the foundry plenty of room for the large work which they are doing.

Admiral ENDICOTT. What would you do about the small castings, purchase them?

Mr. LOUD. Purchase them, or put up a small foundry to take care of that part of the work.

Admiral ENDICOTT. I do not know that that would reduce the cost materially. I do not know that that would be practicable.

Mr. LOUD. If it is feasible?

Admiral ENDICOTT. It does not seem to me that it would be a good plan.

Mr. ROBERTS. What is the necessity for the quay wall down there?

Admiral ENDICOTT. That is very important. The depth of water in front of the quay wall is not sufficient to bring in much more than a tug. The wall was built fifty or sixty years ago for shallow-draft vessels.

The CHAIRMAN. You do not have many vessels lying there, only the *Mayflower* and the *Dolphin*?

Admiral ENDICOTT. No, sir; occasionally we have other vessels there.

The CHAIRMAN. It is not a navy-yard; it is more of a gun factory.

Mr. ROBERTS. Is there not water enough to get the boats up that take the guns to Indian Head?

Admiral ENDICOTT. Yes, sir. We want to get the same depth of water that the War Department is making up to the navy-yard, 22 feet.

Mr. ROBERTS. Would you bring up any other vessel than the *Dolphin* or the *Mayflower* if you had 22 feet of water?

Admiral ENDICOTT. Occasionally another vessel comes there.

The CHAIRMAN. The next item is "Navy-yard, Charleston, South Carolina." I wish you would furnish the committee with a statement of the total amount expended there up to date.

Admiral ENDICOTT. The total amount appropriated for that yard is \$3,399,068.93.

Mr. LILLEY. And the total amount of business. Are you doing any business at Charleston?

Admiral ENDICOTT. No; the yard is not ready for work yet.

Mr. LILLEY. How many feet of water have you there?

Admiral ENDICOTT. About 30 feet.

Mr. LILLEY. I mean to get in there?

Admiral ENDICOTT. On the bar?

Mr. LILLEY. Yes, sir

Admiral ENDICOTT. They have about 27 or 28 feet at low water.

Mr. LILLEY. How much water do your largest vessels draw?

Admiral ENDICOTT. About 27 feet.

Mr. LILLEY. You are liable to have them drawing 40 feet in the next ten or fifteen years?

Admiral ENDICOTT. That is at low tide, Mr. Lilley. A big battle ship draws 27 feet.

Mr. LOUD. Is there any immediate need for that yard?

Admiral ENDICOTT. No more than has existed for several years since we commenced it—commenced to build a dry dock and to make other improvements there. Now, it is a question of going on and spending a considerable further sum to make what we have there available and useful or to discard what we have there.

The CHAIRMAN. The dry dock is finished?

Admiral ENDICOTT. It is nearly completed.

The CHAIRMAN. As soon as it is completed I suppose you will begin doing repair work there?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. Have you sufficient shops there at the present time to do repair work?

Admiral ENDICOTT. They are not all fully equipped, but the most important shops have been built and completed, and the different departments are installing the machinery.

Mr. LOUD. Are not the present yards amply able to take care of the present ships?

Admiral ENDICOTT. Yes, sir; in time of peace.

Mr. LOUD. Would it not be better to leave that yard ready and not put it in operation, and to keep those yards in commission full of business?

Admiral ENDICOTT. That could be done; it was done once with respect to some other yards.

Mr. LOUD. Would it not be the better policy?

Admiral ENDICOTT. It may be done in time of peace.

Mr. LILLEY. Do you not think it was all folly to ever start this yard?

Admiral ENDICOTT. No, sir; I do not think it was folly. I think it is a good idea to have one good yard south of Hatteras somewhere. I do not believe in making it a yard of the first class. I believe in having good docking facilities there, and facilities for moderate and ordinary repairs on that part of the coast. I think with the long extensive coast that we have it is important to have good docking facilities at intervals. I do not believe in making it like the New York or Philadelphia or Mare Island yards, however.

Mr. LILLEY. In time of war are we going to need a great many yards for repairs? In the last naval fight there was not any opportunity to repair. Suppose the Russians had had yards, they would not have had any use for them?

Admiral ENDICOTT. The Russians did not have much facility for repairs, but many of their ships were badly damaged and needed extensive repairs.

The CHAIRMAN. I would like to ask you whether you carried out at this yard the scheme of consolidating the buildings?

Admiral ENDICOTT. No, sir; it was not done. The request came to Mr. Moody from the Senate to submit estimates for a yard on the

largest scale and such works as the different bureaux could carry on with advantage during the next year, and all the bureaux came in with their projects and Mr. Moody considered the matter of consolidation, but he thought he would not undertake it.

Mr. KITCHIN. I had an idea that the plan was to consolidate?

Admiral ENDICOTT. I believe each bureau got up a complete system of buildings.

Mr. LOUD. Are they building separate foundries in that yard?

Admiral ENDICOTT. Yes, sir; and separate machine shops, and everything. There is only one thing consolidated, and that is the power.

Mr. LOUD. Is it a reasonable proposition in this new yard to install foundries in each plant?

Admiral ENDICOTT. I do not think so. The plans made for this yard contemplated a consolidation of the workshops, but that feature was abandoned.

Mr. LILLEY. I would like to ask just one question before I go. A man told me the other day that Mare Island would make a good place for airships and all that sort of thing, but was no place at all for a navy-yard; that the channel filled up every year, and that you would have to spend millions of dollars all the time to keep the thing dredged so that you could get a ship up there—and yet I see that you are asking for \$480,000 for that yard. This man said that he lived on the Pacific coast and said that it was throwing money away to expend money on the Mare Island yard.

Admiral ENDICOTT. I do not agree with him. There was a time when it was very expensive to keep the channel open to a sufficient depth.

Mr. LILLEY. Does it not keep filling in?

Admiral ENDICOTT. Not extensively. We have spent some money in the past three or four years for the purpose of improving the channel by means of spar and training dikes and we have increased the depth without any trouble. We have not done any dredging for the last two years, and the *Charleston* left there the other day, drawing 26 feet of water, without any difficulty.

The CHAIRMAN. As to the navy-yard at Charleston, I wish you would point out those things which you regard as necessary this year.

Admiral ENDICOTT. Grading and paving.

The CHAIRMAN. To complete the dry dock, \$50,000, do you need that?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. The next item is railroad system extension, \$25,000.

Admiral ENDICOTT. Make that \$15,000. The \$30,000 for the central power plant is necessary. For railroad equipment we ought to have something, make it \$5,000. I think the appropriation of \$34,000 for crane-track extension for the 40-ton locomotive crane which we are transferring from Port Royal to Charleston is necessary. Then there is the heating system extension, \$15,000.

The CHAIRMAN. Have you got the heating system in?

Admiral ENDICOTT. We have the central power plant for heating the various buildings. Make the conduit system \$10,000 instead of \$25,000, and give us \$5,000 for sewers and \$10,000 for electric-system extension. That does not go into the central power plant, but is for the extension of wiring; it is for outside work.

Mr. LOUD. Could not they have one general paint shop?

Admiral ENDICOTT. They have no paint shop there at all, and if one is built it is proposed to make it general for all. At present there is not very much painting.

Mr. LOUD. That would be a very successful plan if they kept it up.

Admiral ENDICOTT. Several of the bureaus have paintshops of their own.

The CHAIRMAN. Does that cover the important items?

Admiral ENDICOTT. No. Some work ought to be done in front of the dry dock, dredging \$98,000, in front of the dry dock and adjacent to it. There is plenty of water out in midstream.

The CHAIRMAN. We gave you \$20,000?

Admiral ENDICOTT. That did not amount to anything. The quay wall—\$50,000—is important.

The CHAIRMAN. Can not you get along without that this year?

Admiral ENDICOTT. I think not. We need to do some work, I think, around the dry dock for berthing the vessels.

The CHAIRMAN. How much more?

Admiral ENDICOTT. Eventually, a very much larger sum.

The CHAIRMAN. If we keep the yard down to do repairing and not make it first class, as seems to be your idea—not to make it a great big yard?

Admiral ENDICOTT. No; I would not, but some of the buildings have been constructed on a large scale. Still, there is no reason why everything else should be carried out on the same scale.

Mr. KITCHIN. I think the indications are that it will be a pretty big yard.

Admiral ENDICOTT. The item of \$100,000 for piers and slips is very important.

The CHAIRMAN. Can not the appropriation for piers and slips be left out?

Admiral ENDICOTT. If you have to cut down it might be reduced, but it ought to be appropriated for.

The CHAIRMAN. At Norfolk you are asking for \$1,288,200. Please point out the important items.

Admiral ENDICOTT. Give us \$10,000 for paving and grading instead of \$25,000, \$8,000 for railroad-track extension, and \$100,000 for concrete granite dry dock, to complete. That is the dock which is nearing completion.

The CHAIRMAN. Is that necessary?

Admiral ENDICOTT. Yes, sir; that is the balance, the last appropriation to make. Piers and slips, additional, \$50,000; I think that is very important. That yard is crowded with vessels at all times.

Mr. KITCHIN. Is that dry dock No. 4?

Admiral ENDICOTT. No. 3, the dry dock now nearing completion.

Mr. KITCHIN. What about this one, No. 4?

Admiral ENDICOTT. That is a proposed dry dock to cost \$250,000, a small one for handling tugs and small gunboats.

Mr. KITCHIN. No. 5, to cost \$1,375,000, that is a new proposition?

Admiral ENDICOTT. Yes, sir. That is to be a dock of large size, one to take the largest battle ship. There ought to be one at the Norfolk yard.

The CHAIRMAN. How many docks have you there now?

Admiral ENDICOTT. Three, including the one nearing completion.

The CHAIRMAN. That will take the largest battle ship?

Admiral ENDICOTT. I understand this battle ship is to be not over 510 feet on the water line, and if so she can be got into the dock.

The CHAIRMAN. I think we had better build one before we go ahead with another.

Admiral ENDICOTT. It will be completed in a few months now. We have not many dry docks, and Norfolk is an important point. That yard should be well equipped with dry docks and everything else.

The CHAIRMAN. It has more docks to-day than any yard except New York?

Admiral ENDICOTT. Yes, sir; it has three. If you want to fit out a large fleet from the waters of the Chesapeake Bay in an emergency it would require an immense amount of work. Of course you could call on Newport News, because they have a couple of dry docks, but the duty upon all the resources of those waters would be inadequate.

The CHAIRMAN. What else is there at that yard which is important?

Admiral ENDICOTT. Some navy-yards in foreign countries have a dozen dry docks. I think England has one yard equipped with nearly 18 or 20 dry docks. They could fit out a whole fleet in a few days, so far as painting and cleaning are concerned.

Mr. KITCHIN. When the matter was discussed before the committee in regard to concentrating these dry docks it occurred to me then that that was a very wise suggestion.

Admiral ENDICOTT. Yes, sir; a few yards should be so equipped. At New York you can not get another one in, there is not room, but Norfolk permits of building several, and one yard on the Pacific coast should be well equipped with dry docks. There is an item for rebuilding coal wharf, which is very important. It is right in the center of the yard and is very much needed. We need also the \$130,000 for a power plant. The telephone-system extension is one of the most important items there. The system is in a wretched condition. The extension of the compressed-air system is important.

The CHAIRMAN. Fifteen thousand dollars?

Admiral ENDICOTT. Yes, sir. You might make the electric-plant extensions \$20,000—that is, for outside work.

The CHAIRMAN. Where do they lead to?

Admiral ENDICOTT. They are transmission lines to the new portion of the yard. We bought about 170 acres, and the Marine Corps has put up officers' quarters and new barracks there, and we are extending in that direction with other improvements.

The CHAIRMAN. Do you need \$20,000?

Admiral ENDICOTT. Yes, sir. They also need a naval prison at St. Helena very much.

The CHAIRMAN. Can not they get along this year without it?

Admiral ENDICOTT. They might. They need it very much, however. There is a training station, and a great number is confined. Machine shop, to complete, \$25,000; that is important.

The CHAIRMAN. Will that complete it?

Admiral ENDICOTT. Yes, sir; they say so. They need a new oil house very much, estimated to cost \$40,000.

The CHAIRMAN. What is the matter with the old one?

Admiral ENDICOTT. It is a little bit of a house, about 20 by 30, and there is danger in flammable oils being stored about the shops. I think that is important. It has been asked for for several years in succession. After that I think probably the improvements to the 100-ton

shears to complete, \$20,000, is the only other item I should mention specially. We have a fine 100-ton shears. It is operated by an old cumbersome chain. It does not answer the purpose. It is not up to date. Construction and Repair has asked us to improve it and I think it should be done.

The CHAIRMAN. The next item is naval station, Key West, Florida, and you are asking for \$251,500?

Admiral ENDICOTT. I think the "dredging and filling in" is the most important item. Make it \$25,000 instead of \$50,000. There ought to be one officers' quarters and a decent house for the commandant, and they need some latrines there, \$3,000. You can give us \$5,000 for grading and paving, and a little extension of the water system, \$2,000. As to the \$12,000 for quarters for the commandant, I think we can put up what is necessary for \$6,000. As to the very last item, the sidewalks along the outside of the station wall, the city has asked us to put up sidewalks there, and I can not do it without special authority of law. They thought they could compel us to do it.

The CHAIRMAN. Is that on our own land?

Admiral ENDICOTT. Yes, sir; it is on our side of the street. It requires a special appropriation.

The CHAIRMAN. Do the people walk along there very much?

Admiral ENDICOTT. Yes, sir; I think we had better do it. It is doing what a private individual would do. We removed the plant from Dry Tortugas and turned it over to the Treasury Department and the Marine-Hospital Service. There are some large steel tanks there for water supply. We want to use them at Key West.

Mr. KITCHIN. Will they not need them at Dry Tortugas for the other purpose?

Admiral ENDICOTT. They will not have so much use for water. We used them for the visiting ships.

The CHAIRMAN. Will not the Treasury Department remove them?

Admiral ENDICOTT. No, sir; we will not get them unless we take them away.

The CHAIRMAN. Are they big tanks?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. Do you need them at Key West?

Admiral ENDICOTT. Yes, sir. We depend upon distilling water and what we can catch and store.

The CHAIRMAN. That covers everything?

Admiral ENDICOTT. Yes, sir.

The CHAIRMAN. The next item is navy-yard, Mare Island, California.

Admiral ENDICOTT. I want to say a word or two further about the dredging there. Mr. Lilley raised the point about its costing millions of dollars. I think that you will recall that I was before you two or three years ago, and I thought then myself that unless something could be done to improve the navigation there, without greater cost than then seemed probable, we might as well close up that yard and get a yard somewhere else, and I came before you for an appropriation, not for dredging, but for improving the channel in such a way as to make it self-maintaining, and you have given me, I think, about \$250,000, and we are not asking for any more now.

We have put in training dikes on the other side of the river and spur dikes, which do not interfere with navigation, and they are work-

ing admirably. It concentrates the current, increases the velocity, and that prevents the deposit of material. The prospect is that we will be able to maintain a proper depth there at a very small annual expense. There may be a little dredging once in a while. It has put that yard in a very different position, in my opinion, and we have been so far so successful that we think it warrants holding on to the yard.

The CHAIRMAN. There is a point down below and away from Mare Island, in the channel—

Admiral ENDICOTT. I think you refer to San Pablo Bay. The War Department is improving that. They have dredged a 30-foot channel through there.

The CHAIRMAN. Has there ever been a battle ship up to Mare Island?

Admiral ENDICOTT. The protected cruiser *Charleston* has been up there lately, and drawing, I think, 26 feet and 2 or 3 inches of water.

The CHAIRMAN. But has there been a battle ship there?

Admiral ENDICOTT. No; but they can come there. Still, we have not asked for more than \$480,000. It seems to warrant holding on to what we have and making some moderate improvements.

Of course you want me to cut down these items wherever we can. The railroad system, make that \$5,000; the electric plant extensions, \$10,000; the sewers, about \$3,000. The paving and grading, I think, ought to stand at \$15,000. We very much need that. The heating system extension, make that \$5,000. But we want the whole of that \$100,000 for the central light and power plant. That is part of the consolidation. The telephone system, with extensions, can be made a couple of thousand dollars. I think the electric capstans for the old dry dock are important. They are working them by hand now, and we will connect them up with our electric plant. I think that ought to be appropriated. The extension to building 119, block and copper shop, is very much needed. They are doing a great deal of work of that kind at Mare Island, and they haven't got room to locate the tools.

The CHAIRMAN. Improvements to ship's fitters shop, to cost \$15,000. What would be the nature of the improvements?

Admiral ENDICOTT. They want new skylights and some additional windows, costing \$3,000.

The CHAIRMAN. What do they fit out?

Admiral ENDICOTT. They manufacture fittings for ships, smaller articles.

The CHAIRMAN. Woodwork largely?

Admiral ENDICOTT. Mostly metal. I think the improvements to the buildings 69 and 71, which are the general storehouses, is one of the more important items. They want some ventilators in the building, floor in the attic, and mezzanine floors, and repairs to the roof, \$20,000. It is for two buildings.

Mr. KITCHIN. Those buildings are used for what purpose?

Admiral ENDICOTT. For storage of supplies. They belong to the Bureau of Supplies and Accounts. Improvements to coal cylinders, \$7,500. That is to fit them for the storage of cement. We have no place for the storage of cement. And they want a small workshop for the electrician, to cost \$3,000. They train electricians on that coast.

The CHAIRMAN. Do they have a training school there?

Admiral ENDICOTT. There is a training school down the harbor, but electricians are brought and put under instruction.

The CHAIRMAN. Do you have a workshop at other yards?

Admiral ENDICOTT. We have one in New York for this coast.

Channel moorings, Mare Island Strait, \$9,000. I think that is important. Improvements to the naval prison, \$50,000. This will be an extension of the building.

The CHAIRMAN. How are you off for a prison there now?

Admiral ENDICOTT. We have a prison, an old one, but it is not large enough. The number of enlisted men is increasing, and the number to be taken care of on the Pacific coast is increasing. That is the only prison we have. We have none on Puget Sound.

There is an item for a dispensary building at \$15,000, which should be appropriated unless you appropriate for a medical supply depot to cost \$50,000.

The CHAIRMAN. The next is the Puget Sound Navy-Yard.

Admiral ENDICOTT. We would like \$2,000 for sewers, which is the first item. The work of grading should continue there. I could reduce it some—make it \$15,000 instead of \$25,000.

The electric-light extensions, \$6,000, is an important item.

Those water-system extensions and heating extensions are simply extensions of the distributing plant, and they might be made \$5,000 each. They are now \$10,000 each.

Dredging, to continue. We need that for some dredging around the piers and slips—\$15,000.

Roads and walks, extensions—we should have for that at least \$5,000.

Stone and concrete dry dock, to continue. That is the dry dock authorized last year, and for which you appropriated \$100,000. We ask for \$300,000. I think you might make that \$200,000. With the \$100,000 already appropriated, I think that will be sufficient to carry us through the year.

Central power plant, extensions, \$130,000. That is needed.

For the quay-wall extensions we ought to have at least \$30,000. We changed it from \$55,000 to \$30,000, and we ought to have the whole amount asked there for additional power, \$45,000. That yard is badly off for water-front improvements.

For the officers' quarters, I will say that they are very scarce there. If you can, I think it would be advisable to appropriate for one of those, \$8,000.

Drill hall, gymnasium, and wash room for enlisted men. That is not absolutely necessary this year, but it is something that ought to be provided, so I will pass it over.

The underground conduit system—you can cut that in half and make it \$6,000.

The next item, for electric elevators and fittings, I think can go over this year.

The CHAIRMAN. The next is the navy-yard at Pensacola.

Admiral ENDICOTT. Machinery for central power plant, \$35,000. That and the conduit system, \$2,500, ought to stand. The power plant ought really to be \$70,000. You authorized a plant there to cost not to exceed \$130,000, and appropriated \$60,000 last year, but while I was away the Secretary cut that remaining \$70,000 down to \$35,000. Let it stand at \$35,000, and if before this bill passes we find

that there are contracts made to cover that I will let you know. That is the fifth item.

Naval prison, \$28,000. That is one of the most important items.

The CHAIRMAN. Have you got a naval prison there now?

Admiral ENDICOTT. We have a room in the guardhouse which is a miserable, insanitary place, and is not worth repairing; and, besides, they sometimes have to take care of a good many prisoners down there. As you know, the fleet visits Pensacola often. At every navy-yard we have a little prison for confining a few men for a few days or a week. Pensacola is not near any large prison. One is needed on the Gulf coast of moderate size, as this is designed to be.

The CHAIRMAN. Where do you send those that have been sentenced for some length of time?

Admiral ENDICOTT. We have been building a prison at Portsmouth, N. H., and we have one at Boston. We have put in a rather large one at New York.

The CHAIRMAN. Do you propose to build up one in every yard?

Admiral ENDICOTT. Not regular prisons. We have now a room with a number of cells. Sometimes we have a place about as large as this room with cells for a dozen or fifteen or twenty men for immediate confinement. I think that we need this at Pensacola very much.

Improvements to storehouse building, No. 25, \$5,000. That is for some additional shelving, racks, and so forth, to increase its capacity for the storage of material.

I think there ought to be one officers' quarters there, and there should be a shed for the storage of lumber. Lumber is now stored away in parts of buildings devoted to other purposes.

The CHAIRMAN. The next is the navy-yard at New Orleans.

Admiral ENDICOTT. Yes; that is \$326,300.

The CHAIRMAN. Are you doing much work at that yard?

Admiral ENDICOTT. There are not many ships visiting there; occasionally one goes there. This is for the dry dock, scraping, cleaning, and painting.

The CHAIRMAN. Is there any repair work there at all?

Admiral ENDICOTT. I do not think there is. The constructor's report will show, but I think there is very little. There is a good dry dock there; a fine one.

The CHAIRMAN. What is your idea about this yard?

Admiral ENDICOTT. I would keep it down to a small station; I would not spend much money on it.

Now, at New Orleans we ask for a central electric light and power plant extension. I think that is a proper item and ought to be appropriated for.

The CHAIRMAN. Have you spent any money on that at all?

Admiral ENDICOTT. Yes; we have spent some money on it. If they do anything at all there they will need a central power plant; there is no doubt about that, and we build this up and make it a central power plant for all purposes.

The CHAIRMAN. You got \$50,000 last year, did you not?

Admiral ENDICOTT. Yes, sir; this will make it all that is necessary. There will not be any further extension of that plant unless the yard is considerably enlarged.

Now as to the improvement of the water front, which is the first item, and the levee improvement and grading, they are both impor-

tant in connection with the floating dry dock. That dry dock is first-class, and to make it useful we should have these other improvements. In fact about everything down on that list is necessary eventually, but you can leave something off at present, if you like.

The CHAIRMAN. What would you suggest?

Admiral ENDICOTT. I think the first three items, the improvement of the water front, and the improvement in grading, and the central power plant are probably the most important. That would be about \$290,000.

The CHAIRMAN. Could we reduce them for the coming year?

Admiral ENDICOTT. Well, yes; you could make those first two items one-half, say \$125,000; but as to the power plant, we want to enter into a contract for the whole amount, otherwise there will be two bites of the cherry. Now as to the railroad system—

The CHAIRMAN. Have you got an extensive railroad system there?

Admiral ENDICOTT. No; not extensive. We have got a system there, and it is economy to be able to transfer all of the materials by railroad, and we are building a fine coaling plant there. I don't know but all of the other items might be cut down.

Mr. KITCHIN. How about the central heating plant?

Admiral ENDICOTT. Well, I think we could rest it this year on that. They do not need much heat there, only occasionally, when it is cold. I think they can get along for another year. Those are the most important items.

The CHAIRMAN. We will now go to the naval station at Olongapo.

Admiral ENDICOTT. That is \$690,000.

The CHAIRMAN. You have an item there for dredging and reclamation, \$200,000. Which of these items are the most important for the coming year?

Admiral ENDICOTT. The water system, and some portion of the quay wall, and the power plant. To initiate a power plant we can not go ahead very well for less than \$100,000, because you can not contract for anything for much less than that.

The CHAIRMAN. How about the dredging?

Admiral ENDICOTT. The dredging could rest for another year.

The CHAIRMAN. How about closing the rivers?

Admiral ENDICOTT. I think that is important, for they bring down silt which increases the amount of dredging necessary.

Mr. KITCHIN. What are you going to do with the water from those rivers?

Admiral ENDICOTT. It goes to the bay or harbor through another channel.

Mr. KITCHIN. A natural channel?

Admiral ENDICOTT. Yes. Some of these rivers go down through these marshes and have two or three outlets. They want to cut off one or two that empty right in the yard.

Mr. KITCHIN. Is it the purpose to fill in on that territory that is now occupied?

Admiral ENDICOTT. A good deal of the yard is below grade, and it is to be brought up to grade, and that would have to proceed in case of extensive improvements. But for the moderate scope of improvements contemplated here, it is not necessary to start that just now.

The CHAIRMAN. Then the water system, the quay walls, closing those rivers, the central power plant, and the new buildings started, are the most important.

The next is the naval station, island of Guam. The first item is dredging. What is your idea as to that?

Admiral ENDICOTT. I think it is important. There are only two or three items that amount to anything. That dredging is \$7,500. The water system might be cut down to \$10,000, and the naval station roads about \$5,000.

The CHAIRMAN. Are those a part of the naval station there?

Admiral ENDICOTT. Yes. Those are the most important items.

The CHAIRMAN. How is the fire protection system?

Admiral ENDICOTT. Well, I think you gave us something last year.

The CHAIRMAN. Can that go over?

Admiral ENDICOTT. Yes.

The CHAIRMAN. The next is the naval station, Hawaii.

Admiral ENDICOTT. There are only two items asked for there, grading, curbing, and fencing, \$1,100, and timbers for the piers, \$2,000. I think that those ought to be allowed. They are not asking for anything in the way of new improvements.

The CHAIRMAN. The next is naval station at Guantanamo.

Admiral ENDICOTT. The estimates from there amount to \$704,800. You know we started a dry dock down there.

The CHAIRMAN. If we do not give you any more you will not go ahead with that.

Admiral ENDICOTT. We have spent all excepting a few thousand dollars.

The CHAIRMAN. The next is the naval station at Cavite; extension of building 64, \$7,500.

Admiral ENDICOTT. I think that ought to be allowed.

The CHAIRMAN. You do think that ought to be allowed?

Admiral ENDICOTT. We cut out everything. We had lots of estimates from there; I do not remember how much they amounted to, but a great deal. That extension of building 64—that is a lumber storehouse, and they haven't sufficient room for the storage of material. The other building there is for a boathouse. They have no storage for boats. There is \$1,500 for improvement of naval prison. That is simply to keep the thing up until we get out of there.

The CHAIRMAN. We might want to stay there.

Admiral ENDICOTT. We might; yes. It is a good little yard. That yard has done an immense amount of work since the Spanish war.

The CHAIRMAN. They do not seem to be asking for improvements.

Admiral ENDICOTT. The Department has ordered everything stopped there. I do not make any extensive repairs there without the consent of the Department.

The CHAIRMAN. That shows we could get along without any of these yards if we didn't appropriate a single dollar for them.

Naval station at Culebra, \$2,000.

Admiral ENDICOTT. That is for clearing, grading, and fencing. That ought to be granted. That is a place where there is no local interest.

The CHAIRMAN. The next is naval station, San Juan, P. R.

Admiral ENDICOTT. We have asked something for the marine railway there. It is important. There is a good deal of coaling done

there, and this is for coal. We have to maintain a lot of coal barges, and we have not been able to take the coal barges out; in fact, they need repair, and this is necessary.

The Equipment Bureau is asking for an equipment building, an anchor, chain, and galley shop. They do a little work down there. Vessels visit there quite frequently.

The CHAIRMAN. They have a little repair place at Culebra, haven't they?

Admiral ENDICOTT. No; there is not much there. We have never spent anything there. I think it might be well to allow these; they are small amounts, and it is a very good little station.

The CHAIRMAN. I know, but is it policy to build it up?

Admiral ENDICOTT. There is nothing here that contemplates building it up to any extent. I got estimates from there of over \$2,000,000, and cut them all out excepting two or three things. There should be added, however, \$1,400 for water supply.

The CHAIRMAN. Naval station, Tutuila.

Admiral ENDICOTT. We asked for barracks for native guard, grading and filling, recreation building and fittings, and operating room, a total of \$14,000. I don't think the grading and filling is very important, and that could rest, but the other things I think are important.

The CHAIRMAN. How much of a guard have they there?

Admiral ENDICOTT. They have quite a guard down there.

The CHAIRMAN. They sleep outdoors a good deal, do they not?

Admiral ENDICOTT. I suppose they do a good deal.

The CHAIRMAN. What is the operating room?

Admiral ENDICOTT. The Surgeon-General wants to build a little room for operations, to cost \$1,000. You know there is a ship stationed there and a local guard. I think it would be well to allow that.

The CHAIRMAN. Government landing, Newport, R. I. For steel floats, fences, dredging, and general improvement.

Admiral ENDICOTT. There is only one item of that, \$7,840. I think they are important.

The CHAIRMAN. What have you now?

Admiral ENDICOTT. We have cut out a good deal at that station. They came in for the purchase of additional land which the Senator from that State, Mr. Wetmore, recommended very strongly. We let just this one item stand.

The CHAIRMAN. Is it a part of the station?

Admiral ENDICOTT. It is not a station; it is a landing in Newport for the training station, war college, and torpedo station. It is also a point of call for the Treasury Department vessels, and the War Department also uses it as a landing.

The CHAIRMAN. On Government land?

Admiral ENDICOTT. Owned by the Government. It was decided that the Navy Department should maintain it for all three Departments, the Treasury, War, and Navy, and the Yards and Docks should have charge of it under the Navy Department.

The CHAIRMAN. Steel floating dry dock, \$250,000.

Mr. KITCHIN. Where is it determined to put that if it is authorized?

Admiral ENDICOTT. I think it would go to the mouth of the Patuxet River, Solomon's Island. That is where the Cavite dock was moored and fitted out for towing and where she was tested.

The CHAIRMAN. It would not be moved around very much?

Admiral ENDICOTT. No; I don't think so. Of course it is capable of being moved at any time, if you want to, but I have always thought a floating dock on Chesapeake Bay would be an admirable thing.

Mr. KITCHIN. Don't you think that unless we desire to fit up another naval station down there we had better put this dry dock at Norfolk or at some other point?

Admiral ENDICOTT. One reason why I thought we had better keep it at Solomon's Island is that it would keep vessels away from the navy-yard. I talked with some of the captains who docked vessels on this dry dock at Solomon's Island as to their views about locating a dry dock there, and they thought it would be a fine thing if you have no shore stations. We do not want any navy-yard, although I think some of the advocates have that ultimately in view. My idea would be to have no shore station at all. It is a beautiful, quiet piece of water, and when you want a vessel to go to the dry dock somewhere on Chesapeake Bay for cleaning, painting, and small repairs, instead of sending her to the navy-yard, where she will be tied up for two or three months and where the heads of departments will come in with lots of requests for this repair and that repair, she could be sent to Solomon's Island without taking up any room at a yard, and where she could be cleaned and painted and repaired.

And then again it would take in a vessel with a deep draft or that may have been disabled, and would be drawing a few feet more than ordinarily, and which could not get up to the Norfolk Navy-Yard. The draft at Norfolk Navy-Yard is about 28 feet. I would not favor establishing a navy-yard anywhere on Chesapeake Bay. I think it is entirely useless. I think we need quite a number of minor stations at points along the coast, because the coast is so extensive, but I think they should be kept down within moderate limits. They should be second or third or fourth class naval stations, such that in time of peace you can take a vessel in there to make some slight repairs without overcrowding the more important yards. But in case of war they could be availed of more extensively by temporary provision.

Mr. KITCHIN. The next item, plans and specifications for public works, is increased from \$30,000 to \$45,000. What is the necessity of that increase?

Admiral ENDICOTT. We have been hampered very much in the Bureau in carrying on the drafting and engineering work, and although I can use the different appropriations, for plans and specifications necessary and incident to their construction, I can not expend more than \$30,000 of it in the Bureau. I can spend all I want in the navy-yard; in fact, I can spend ten times that amount at the navy-yards out of this special appropriation, but the law limits the amount which can be spent in the Navy Department proper in Washington. They are afraid of building up a big civil establishment in the Department.

Mr. KITCHIN. So all of this \$45,000 is to be spent in the Department?

Admiral ENDICOTT. Yes. I can employ 20 draftsmen down at Washington Navy-Yard to-day, and set them to work on these plans, but I can not employ them in my Bureau in the Navy Department. I do not beat the devil around the bush in that way. I keep right to the law.

The CHAIRMAN. Do they allow you any more in the legislative bill than \$35,000?

Admiral ENDICOTT. We have asked for an increase.

The CHAIRMAN. But that bill has already passed the House.

The next item, repairs and preservation at navy-yards, \$500,000, which is \$50,000 more than last year.

Admiral ENDICOTT. That is because we have such a large establishment to take care of.

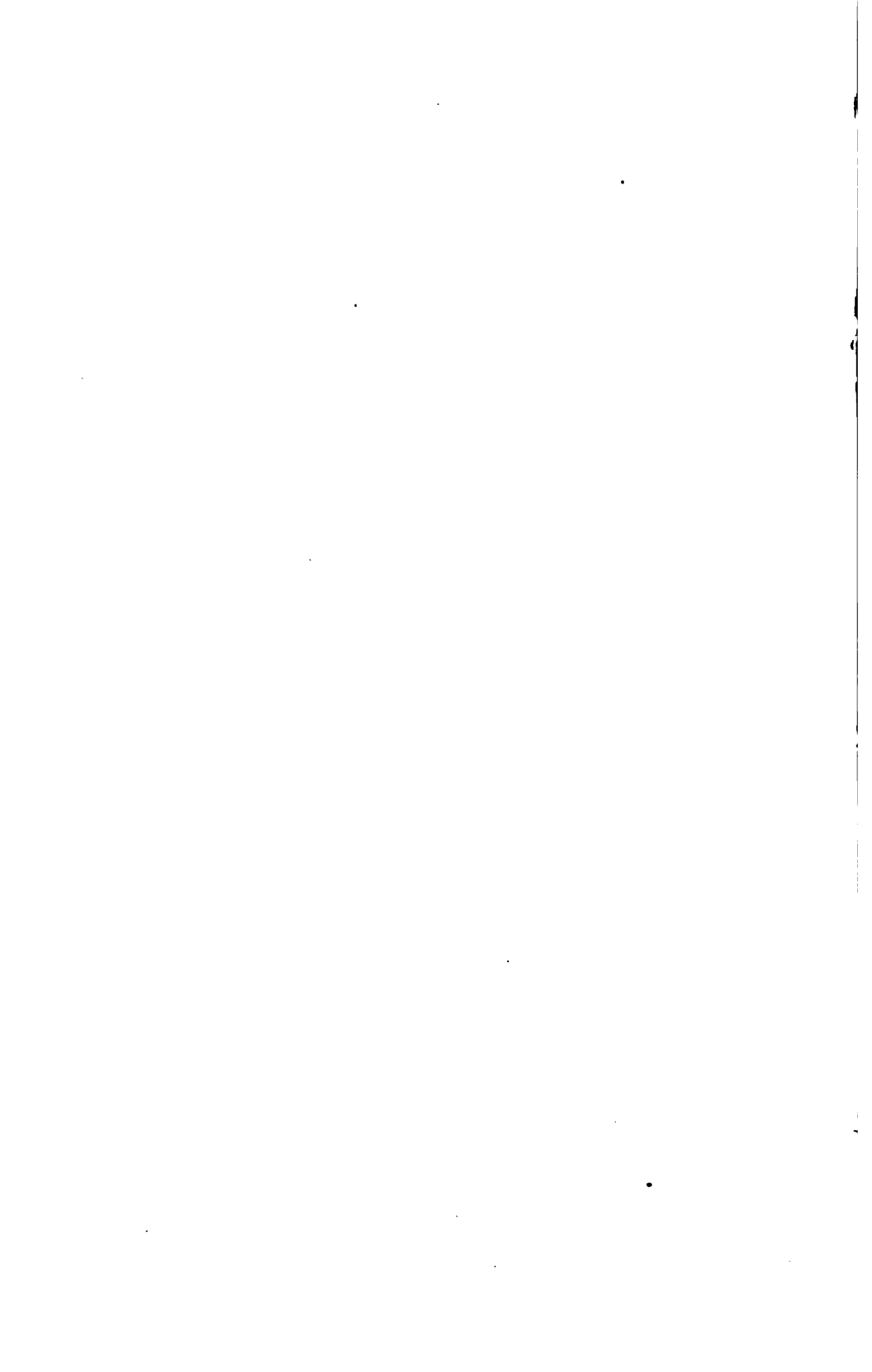
The CHAIRMAN. You will have no deficiency this year?

Admiral ENDICOTT. I never allow any deficiency in that appropriation, because I let things go. But think of the plant that we have there. It is worth about \$85,000,000. Some of it, of course, does not need repairs, and the land is included in that valuation. But all of the buildings and the dry docks and the wharves are very valuable.

Mr. KITCHIN. But then throughout the bill there are other items that carry appropriations for certain specified repairs.

Admiral ENDICOTT. Very seldom for repair. If I want extensions or something in the way of improvements, what a railroad would call "betterments," then I would come to you for it. I do not think that I have asked for any item for repairs. I asked one for Norfolk, that was too expensive for my appropriation. This money is all carefully and judiciously expended, but it is not enough. That would be less than 1 per cent on the total value of the property belonging to the Yards and Docks. Of course that is not quite a fair comparison, because the land does not need any repairs, and the percentage of the cost of the dry dock is comparatively small, because a dry dock that is once built of granite would stand there for a century. The repairs would be to the perishable portions of the steel, machinery, etc.

The CHAIRMAN. This closes your Bureau, I think. I wish you would extend your answers somewhat in the record upon those important items so that we will have full information in regard to them.



[No. 8.]

BUREAU OF STEAM ENGINEERING—STATEMENT OF REAR-ADMIRAL CHARLES W. RAE, ENGINEER IN CHIEF.

MONDAY, *December 17, 1906.*

The committee this day met, Hon. George E. Foss in the chair.

The CHAIRMAN. The first item under the Bureau of Steam Engineering is—

Steam machinery: For completion, repairs, and preservation of machinery and boilers on naval vessels, including cost of new boilers, etc., \$3,500,000.

That is the same as last year?

Admiral RAE. Exactly the same as last year.

The CHAIRMAN. Of course you can not ask for a deficiency.

Admiral RAE. No, sir. We have managed to pull through by cutting down pretty well, and I hope to do the same thing next year.

The CHAIRMAN. Will you have an unexpended balance?

Admiral RAE. There is a small unexpended balance, which goes to foreign accounts. We never know the exact amount of the foreign account until after the expiration of the fiscal year. We set aside practically the same amount every year.

The CHAIRMAN. Has there been any large unexpended balance in the last two years?

Admiral RAE. Not in my Bureau.

The CHAIRMAN. Will you kindly furnish a statement showing how this money has been expended, the \$3,500,000?

Admiral RAE. I can show you practically how it is expended, but I do not know that you would like to listen to it.

The CHAIRMAN. Just put it in the hearing, and also a statement with regard to the appropriation of \$2,000,000. That is the same as last year?

Admiral RAE. Yes, sir. The following is a statement of the expenditure of the Bureau's appropriation for the fiscal year ending June 30, 1906:

Bureau of Steam Engineering.

FINANCIAL STATEMENT.

Amount appropriated for fiscal year ending June 30, 1906 (act approved March 3, 1905)-----	\$3, 905, 000. 00
Amount of deficiency appropriation (act approved May 3, 1906)-----	100, 000. 00
Total for fiscal year 1905-6-----	\$4, 005, 000. 00
Labor in navy-yards and stations in repair of steam machinery, boilers, etc., of naval vessels fitting for sea service, preservation and repair of tools, handling and preservation of materials, stores, etc -----	\$1, 954, 153. 90
Purchase of materials, stores, machine tools, freight, and incidental expenses-----	1, 555, 374. 09

Payments for repairs, materials, freight, and incidental expenses for ships on freight stations...	\$472, 297. 89
Total	3, 981, 825. 07
Less refunds by transfers in adjustment of appropriations and deposits by paymasters in transferring accounts	82, 412. 68
Total expenditure	\$3, 899, 413. 29
Balance in Treasury December 18, 1906, to meet outstanding obligations under appropriation steam machinery, 1905-6	105, 586. 71

The CHAIRMAN. You do not think we could reasonably cut down these appropriations for the coming year?

Admiral RAE. I think not. In fact, I fancy there will be more ships in commission next year than this year, and as we have to exercise very careful supervision to keep within the appropriations. I think it would not be a good policy to cut them down.

The CHAIRMAN. Out of that appropriation you do the work of repairing ships and overhauling ships?

Admiral RAE. Yes, sir; entirely out of that appropriation.

The CHAIRMAN. During the past year what ships have been overhauled?

Admiral RAE. I have a list of the ships that will in all probability be overhauled in the coming year. I have not a list of those which have been overhauled during the past year. Here [exhibiting] is an estimate of the probable expenditures for the coming year for that purpose.

List of ships which will probably be given a general overhaul, 1907-8.

U. S. S. Balley.....	\$80, 000
U. S. S. Bennington.....	80, 000
U. S. S. Brooklyn.....	40, 000
U. S. S. Cavite torpedo destroyers.....	100, 000
U. S. S. Detroit.....	150, 000
U. S. S. Massachusetts.....	100, 000
U. S. S. New York.....	100, 000
U. S. S. Oregon.....	175, 000
U. S. S. San Francisco.....	100, 000
U. S. S. Solace.....	30, 000
U. S. S. Texas.....	100, 000
U. S. S. Vicksburg.....	10, 000
U. S. S. Wyoming.....	10, 000
U. S. S. Baltimore.....	125, 000
U. S. S. Culgoa.....	25, 000
U. S. S. Marblehead.....	25, 000
U. S. S. Nashville.....	60, 000
U. S. S. Nicholson.....	20, 000
U. S. S. O'Brien.....	20, 000
U. S. S. Yankee.....	20, 000

The CHAIRMAN. Will you please insert that in the record?

Admiral RAE. Yes, sir; I will do so. That is always subject to change. It may be that the ship at first decided to be repaired may afterwards be thrown out, but in all probability another will come in. The estimate usually averages about right.

The CHAIRMAN. Your estimate for incidental expenses—\$5,000—is the same?

Admiral RAE. Yes, sir.

The CHAIRMAN. Could that amount be reduced?

Admiral RAE. I think not. We have had to get along without a good many things that we needed.

The CHAIRMAN. The next item is "Machinery plant, navy-yard, Pensacola, Florida," and you are asking for \$15,000?

Admiral RAE. Yes, sir; that is very necessary. I asked for Pensacola, \$25,000, but it was cut down to \$15,000 by the Secretary.

The CHAIRMAN. What tools do you want to buy?

Admiral RAE. A good many tools for the machine shop. The tools down there are all very old and out of date, and the work done costs more than it would if the machinery plant was in good order and had modern improvements. I think a good many of the tools down there have been in use since the civil war, and some of them before that time.

The CHAIRMAN. Can not you buy such tools as are necessary out of the general fund?

Admiral RAE. No, sir; I think not. They would cost too much.

The CHAIRMAN. The next item is—

Machinery plant, navy-yard, Portsmouth, New Hampshire: To outfit new shops authorized and completed or nearly completed, especially the new boiler and pattern shops, etc.

Admiral RAE. We are completing those shops now and we want to get the appropriation right away so we can get the tools and go ahead, so there will be no delay. The buildings are authorized.

The CHAIRMAN. Are they building now?

Admiral RAE. Yes, sir.

The CHAIRMAN. Both the boiler house and pattern shop?

Admiral RAE. The boiler shop is building, the pattern shop is authorized only.

The CHAIRMAN. Is it possible to have one pattern shop for a whole navy-yard?

Admiral RAE. I do not think there would be any economy in that. You would have to have the same total number of tools in all probability, and unless you changed the whole administration of the yard it would be difficult to do the work of different departments in one shop.

The CHAIRMAN. Last year we gave you \$110,000 for these new shops and this year you are asking for \$50,000 more. How much are they going to cost?

Admiral RAE. It will cost to completely fit a shop anywhere from \$250,000 to more, dependent upon the size of the shop. This is the first installment toward it. The \$110,000 was a large amount. There was an extra amount put in there for a large traveling crane. That is what made it cost so much.

The CHAIRMAN. How much work did you do at Portsmouth last year in your Bureau?

Admiral RAE. Of course at the Portsmouth yard we are building it up from a very bad condition, but I can give you the vessels which were repaired.

Repairs were made to the machinery of the following naval vessels: *Don Juan de Austria*, *Eagle*, *Isla de Cuba*, *Potomac*, *Mayflower*, *Southery*, *Lebanon*, *Dolphin*, *Hannibal*, *Nezinscot*, and *Sioux*, as well as to the machinery of the yard launches and ferry. The repairs to

the *Don Juan de Austria*, *Isla de Cuba*, *Eagle*, *Potomac*, and *Hannibal* were of an extensive nature, involving a thorough overhauling of the machinery. Fifty-three steam-cutter engines were built during the year.

Work has been done for other yard departments as follows: Ordnance, Equipment, and Yards and Docks. Practically all the gray iron and brass castings required by these departments have been made in the foundry. Repairs have been made to all the steam generators in the yard.

The CHAIRMAN. You have somewhere in some report a statement showing the amount of labor and material in your Bureau at the different yards?

Admiral RAE. Yes, sir; we can give you the labor exactly. The material is always the stumbling block, because it runs over from one year to another. Material that was used this year may have been bought last year or the year before.

Mr. KITCHIN. Does your report show the amount of work performed under your Bureau at each of the navy-yards in the country?

Admiral RAE. Yes, sir; the labor is exact. There is no doubt about that. It is only in the material where we have any trouble. The material is turned over to the general storekeeper, and he may have material there which was bought last year and some the year before, and we just make a requisition and get it, but we do not know from what appropriation it came.

Mr. KITCHIN. Is there any inventory of the material at hand taken at these various stations?

Admiral RAE. I suppose there is. That is entirely under the Bureau of Supplies and Accounts.

The CHAIRMAN. You are asking for other shops this year at Portsmouth?

Admiral RAE. Yes, sir.

The CHAIRMAN. How much is it going to cost to build the new shops—refitting and everything?

Admiral RAE. Some of the buildings now used at this yard, as well as some of the tools, are antiquated and entirely unsuitable. A new machine shop has been built, a new boiler shop begun, and an appropriation toward building a pattern shop is available. An additional appropriation will be necessary for completion, as this is a preliminary appropriation.

The CHAIRMAN. Are you not asking for some new shops this year?

Admiral RAE. Yes, sir.

The CHAIRMAN. What are they?

Admiral RAE. There is urgent need that a modern foundry building, forge, and pipe-shop building, coppersmith shop, and blacksmith shop building, erecting shop, and auxiliary power house, with proper equipment to be provided. The secretary called me up and told me that he went over with the Chief of the Bureau of Yards and Docks, who has charge of building all the new shops, what we had asked for, and, as he expressed it, he had "slaughtered them very severely," and he said "if there is anything that you consider very necessary I wish you would write me." So I went to Admiral Endicott and found out what he had done, and wrote the Secretary a letter, which he told me that he would "send along with his blessing." I do not know

whether it came to the committee or not, but I asked especially for buildings at League Island, Mare Island, and Pensacola.

The CHAIRMAN. The next item is—

Machinery plant, navy-yard, Norfolk, Virginia: For machine tools to equip machine and boiler shop extension, \$40,000.

Admiral RAE. That is necessary to equip the shops that have been reconstructed and will require more tools. That amount is required for tools that are necessary to replace tools worn out and in the present shops.

The CHAIRMAN. How about the machinery plant at Boston?

Admiral RAE. The machinery plant at Boston?

The CHAIRMAN. Yes, sir; for additional machine tools for boiler-shop extension. You are asking for it?

Admiral RAE. Yes, sir.

The CHAIRMAN. If it is not allowed, why, of course, you will not need this appropriation?

Admiral RAE. The tools would be placed as well as they could be, even if the extension of the building was not allowed, but it is simply the extension of a building already built to bring it out to the building line and give us a much increased floor space which is very necessary.

The CHAIRMAN. How about the machinery plant at New York?

Admiral RAE. That is simply to supply the shops already in existence, tools that are found necessary to replace others that are worn out, and to supply deficiencies.

The CHAIRMAN. At League Island you are asking \$25,000?

Admiral RAE. We have just built some new shops there, and this is for the equipment of those shops. Three of them have been completed entirely. Of course we move all the tools that are in good order from the old shops over to these shops, but it is always necessary to put in new ones on account of the increased size of the shops, due to the continued increased size of the Navy.

The CHAIRMAN. Why should you increase the size of these shops when, as a matter of fact, they are doing very little work at League Island? We have a plant there that cost anywhere from \$8,000,000 to \$10,000,000, and for some reason or other the Navy Department does not send ships that amount to anything there and they do not have any work to do. I have been there, and you can travel for miles through the shops and see comparatively few men working and few tools, and yet they are asking for extensions.

Admiral RAE. The reason you do not see any more men is that we have to keep down the force to correspond to the appropriation, and many of them were probably working on board the ships.

The CHAIRMAN. There seems to be a disposition somewhere to favor certain yards and not to divide up the work.

Admiral RAE. More ships go there now than heretofore; quite a number of ships have been overhauled there.

Mr. LILLEY. It is your intention to have the ships repaired where they can be repaired to the best advantage?

Admiral RAE. Yes, sir.

Mr. LOUD. Are not the Norfolk and New York yards now able to take care of all the repairs, and what is the use of starting up new yards?

Admiral RAE. I do not think they are able to take care of it all. They are very much crowded both there and at Boston. I was in Boston a short time ago, and there were six battle ships there, and with the force on hand they were very hard pushed.

Mr. LOUD. I intended to have included Boston in my question. Those which are in vigorous use and able to take care of the repairs—why urge the opening of other yards?

Admiral RAE. They are sent there because they are the only ones that can take care of them at present.

Mr. LILLEY. Are they crowded down at League Island?

Admiral RAE. Just at present, no. We have just sent two ships there.

The CHAIRMAN. The next item is, "Guantanamo, Cuba." Have you any shops there?

Admiral RAE. No, sir.

The CHAIRMAN. So, if you do not get any you will not need this appropriation?

Admiral RAE. No, sir.

The CHAIRMAN. The next item is—

Machinery plant, naval station, Cavite, Philippine Islands: For additional machine tools required to facilitate repairs to naval vessels on Asiatic stations, twenty-five thousand dollars.

Admiral RAE. That is very necessary. That yard is doing an immense amount of work all the time. It is a question between Olongapo and Cavite, and is a question that never downs. I do not think Olongapo can be made a place to repair ships for years. They have no shops to speak of there, or anything.

The CHAIRMAN. At Olongapo you are asking for \$20,000?

Admiral RAE. Because the Navy Department apparently wants to build up that place.

Mr. LOUD. At Cavite there were two ships being rebuilt, one a monitor and the other a cruiser. Are they still there under repairs?

Admiral RAE. They are completed.

Mr. LOUD. Have you any ships there now?

Admiral RAE. Ships go there all the time.

Mr. LOUD. I mean ships undergoing general overhauling.

Admiral RAE. No, sir.

Mr. LOUD. Those were having a general overhauling?

Admiral RAE. Yes, sir. The *Monterey* was one, and there were two others, small cruisers, *Helena* and *Wilmington*.

Mr. LOUD. It seemed to me as I saw them that it would have been cheaper to have taken them out and sunk them in the China Sea.

Admiral RAE. That yard does a great amount of work.

Mr. LOUD. They had 3,000 men when we were there.

Admiral RAE. Small repairs can be made there without sending the ships here. General overhauling should never be done out there—never. The yard is not properly equipped for it.

Mr. LOUD. I thought it was a mistake at the time we were there.

Admiral RAE. I think so. I do not think it should be done.

The CHAIRMAN. Unless we build shops at Olongapo you do not need the tools?

Admiral RAE. They are putting things in order, and we do require the tools very much, because they have got to have sufficient tools to do light repairing.

The CHAIRMAN. In connection with the dry dock?

Admiral RAE. Yes, sir.

The CHAIRMAN. But nothing beyond that?

Admiral RAE. Not at present; but we do require those tools very much, because we have not much there to speak of, and old buildings are being put in shape in which to install them.

The CHAIRMAN. The next item is—

Engineering experimental station, United States Naval Academy, Annapolis, Maryland—Salaries: One civilian assistant to the director, at three thousand dollars.

Is the director a naval officer?

Admiral RAE. He is; and therefore a civilian assistant director is very necessary. The director has been taken away two or three times to perform extra duties, and when he goes it just stops things for the time being.

The CHAIRMAN. Have you anyone in mind for that position?

Admiral RAE. No, sir.

The CHAIRMAN. How would you get a man—advertise, or go to some of the technical schools?

Admiral RAE. No, sir. There are several applicants for the position already. We would pick out one of the applicants, or we might go to the Civil Service Commission. I think, however, they do not have anybody as high as is required there. Great care would be taken in the selection because it is a place where we want a man of undoubted ability. Last year you gave us all except the civilian assistant director.

The CHAIRMAN. Have you started in there doing any experimental work?

Admiral RAE. These men are all employed erecting the experimental turbine that was purchased from Parsons in England and sent over here. It was brought in free of duty on account of being for experimental purposes. They are erecting it now and getting on toward the time to begin experiments. They will have it all ready in a short time.

The CHAIRMAN. How about the next item, "Contingent," \$1,000?

Admiral RAE. That is necessary for the simple reason that we wish to purchase papers with articles concerning experimental work, in addition to ordinary incidental expenses.

The CHAIRMAN. Could not that be taken care of under the appropriation of \$5,000 for "incidental expenses?"

Admiral RAE. The \$5,000 would not be enough. We find it is all we can do to get along with the other incidental expenses we have outside of this experimental station.

The CHAIRMAN. The next item is "Experimental and research work, \$25,000." Do you require all that amount for the coming year?

Admiral RAE. I think so. That work is going on all the time, and that is the fund from which we pay the expenses.

The CHAIRMAN. Then for buildings you are asking \$50,000?

Admiral RAE. Those buildings are very necessary. We have finished the foundation of the experimental station and the contract for the superstructure has been let. There is no place where the officers can live, and they should soon be permanently there.

The CHAIRMAN. You are not building that now?

Admiral RAE. Yes, sir; we are building the superstructure of the main building, the foundation being completed. The delay was in getting a clear title to the land there. Now we have it all right.

The CHAIRMAN. You have not got it completed yet?

Admiral RAE. No, sir. We are putting up the turbine in a building loaned by the Naval Academy for the time being, but these men will have to be over there while the building is going up.

The CHAIRMAN. How far from Annapolis?

Admiral RAE. About 2 miles by road and the road is very impassable at times and the river for a couple of months is rather difficult to cross, and they should be on the grounds. Besides that two of the buildings would be occupied by naval officers who now get commutation of quarters. In that case they would not. So there is a little offset against that amount. Those buildings should be put up at once.

Mr. KITCHIN. Do you think the buildings suggested there will cost as much as \$20,000 for one and \$15,000 for each of the other two?

Admiral RAE. I think these are much cheaper than the ones at the Naval Academy, and yet this station is part of the academy. The price of construction has gone up wonderfully in the last three years. I doubt whether it is enough, but I discussed that with the director, and he said he thought it would possibly do.

Mr. KITCHIN. This does not include the cost of the land?

Admiral RAE. No, sir; the land now belongs to the Government. The cost of the new quarters, unfurnished, at the Naval Academy for the commandant of midshipmen—the director is a commander and will shortly be promoted, so it is a comparable statement—was \$34,000, and we ask for \$20,000.

Mr. KITCHIN. The Naval Academy has a \$10,000,000 limit, and in the opinion of a great many people they have been quite extravagant in the expenditure of the same.

Admiral RAE. Another thing. The Quartermaster-General has made a statement, I think, that the cost of construction has gone up 30 per cent, or something like that, in the last year and a half or two years.

The CHAIRMAN. Under civil establishment the items are the same except as to Cavite?

Admiral RAE. That is not an increase in money. Those people before were paid from the navy contingent, and I want to get them on the civil establishment, where they properly belong; but the money is just the same. It is not an increase. It is shifting them from the navy contingent to the civil establishment.

The CHAIRMAN. There was a proposition introduced by a Member of the House to limit your working appropriation of \$3,500,000 to repairs under 10 per cent, or to make the same percentage that is now applied to wooden ships applicable to steel ships as well, so that whenever there is any question of overhauling or any repairs in excess of that amount you would submit a general estimate to Congress.

Admiral RAE. That is a question of administration. Of course, if Congress thinks that would be the better way to do it, it could be done, but I doubt very much whether it would be more economical to the Government, and it might create great delay when we want to

overhaul a ship and do not anticipate it in time to get it up to Congress.

The proposition to limit repairs of steel vessels to those less than a certain percentage of the value of the ship might possibly be advantageous so far as protected cruisers and other unimportant vessels are concerned, but should not apply to armored cruisers, battle ships, and torpedo boats, except such as are of so faulty or obsolete design as to carry a reasonable doubt as to the advisability of continuing them longer in service. The reasons governing the advisability of overhauling vessels may be greatly different in nature; cases may arise where the hull of a vessel will require but few repairs, whereas steam-engineering repairs alone, or together with ordnance and equipment repairs, might involve considerable expense. In many such cases it would appear to the Government's interest to overhaul the vessel rather than to condemn her and have her replaced by a new vessel. It would, therefore, appear that each case should be considered upon its own merits by the Department, this matter being left entirely to its discretion.

If this matter must be made the subject of legislation, 25 or 30 per cent would seem to be a fairer estimate, the Department to use its discretion below the percentage established for the reason that it might not be advisable to repair vessels of an obsolete type at less expense.

As regards the proposition for the Congress to specifically appropriate money for general overhaul, each ship by name, I consider that such a policy would entail great loss of time and long periods of waiting for authorization and money to carry on necessary work, possibly doubling the time during which the services of a vessel would be lost to the Government.

As a whole, in both cases, in my opinion, the present method appears to be the better one.

The CHAIRMAN. Is there anything further which you desire to say to the committee?

Admiral RAE. I sent a letter to the Secretary in regard to buildings at the Mare Island Navy-Yard. They are very necessary. We are going to build a collier out there. The Secretary told me to write a letter on the subject, which I did, and I took it to him personally, and he said that he would send it along with his blessing. Whether it came to the committee or not, I do not know. This is a copy of the letter which I sent to the Secretary:

DEPARTMENT OF THE NAVY,
BUREAU OF STEAM ENGINEERING.
Washington, D. C., November 19, 1906.

SIR: 1. This Bureau is informed that, in the estimates submitted by the Bureau of Yards and Docks, under the head of "Public improvements," for buildings to be used by this Bureau, the following are a few of those not approved by the Department, and which the Bureau considers absolutely essential for the proper performance of the work under its cognizance.

Item 1. Navy-Yard, League Island, Pennsylvania: Administration building and drafting room, \$20,000.

Reason: The offices are located in the new shop building, which is barely sufficient in size to carry on the work. It being necessary to move from the old offices in order to make room for the general storekeeper.

Item 2. Navy-Yard, Mare Island, California:

(a) Administration building and drafting room, \$20,000.

Reason: The present office, etc., are in one corner of the general storehouse, and the Bureau of Supplies and Accounts has already requested that they be vacated in order to make more room for stores.

(b) Pattern shop, \$60,000.

Reason: The present shop is the upper floor of the present machine shop. It has been necessary to remove a large portion of the flooring in order to install the traveling cranes for use in the building and erection of the machinery for the collier *Prometheus*.

(c) Extension of machine shop building, \$125,000.

Reason: The present machine shop is entirely too small to cope with the increasing work of this yard, and, with the addition of the work on the collier, the output will be decidedly decreased owing to the congested condition.

Item 3. Navy-yard, Pensacola, Fla.

(a) Machine shop, \$40,000.

Reason: Owing to the increasing work at this station, the Bureau considers this very essential. The present facilities are extremely limited.

(b) Administration building and drafting room, \$20,000.

Reason: The present office is a small room only and entirely inadequate.

Very respectfully,

C. W. RAE,

Engineer in Chief, U. S. Navy, Chief of Bureau.

The SECRETARY OF THE NAVY.

That letter was sent to the Secretary and he said he approved it. To build the collier out there it will be necessary that the large traveling crane should be used in the machine shop from one end to the other, and we have torn down consequently a portion of the floor which formed the pattern shop to allow the crane travel. Now, we require a pattern shop and we require an administration building. Our offices are in the Bureau of Supplies and Accounts' storehouse and they have told us to get out, and we have no place to go. The extension of the machine shop is the most pressing necessity, as stated in the letter to the Secretary. The congestion is already acute and will be worse when the machinery for the *Prometheus* is building.

[No. 9.]

**STATEMENT OF CAPT. ALBERT ROSS, COMMANDANT OF THE
NAVAL TRAINING STATION, GREAT LAKES.**

The committee met at 10.30 o'clock a. m., Hon. George E. Foss (chairman) in the chair.

The CHAIRMAN. You are the commandant of the naval training station at the Great Lakes?

Captain Ross. Yes, sir.

The CHAIRMAN. I wish you would tell us how you are getting on out there in a general way.

Captain Ross. We made a very fair start and proceeded with the work on the main bridge, and laying the water mains, the digging of the harbor, and building the levees, but on account of the cutting of the lake front have been compelled to throw in a series of cribs. With our facilities the cribs are not all as strong as they should be, and as a result two of them have been swept away as a result of storms. About one-third of the harbor has been dug, the contractor having struck all sorts of difficulties, not only in digging the harbor, but in holding the material which is taken from the harbor, a blue clay of the oiliest nature, and it is almost impossible to retain it.

The CHAIRMAN. You have let the contract for the deepening of this basin, have you?

Captain Ross. Yes, sir.

The CHAIRMAN. What is the amount of the contract?

Captain Ross. The amount of that contract was \$35,000. That is, we had two jobs at the same time. We dug the basin at the same time that we filled the ravines necessary to be filled on account of the layout requiring certain buildings to be located over these ravines.

The CHAIRMAN. You say the storm has washed away that shore?

Captain Ross. When I took possession of the property the lake front was intact, with a beach of 25 to 30 feet in front of it, so that you could drive from the station to North Chicago. At present the whole north front has been washed away. The encroachment has been more this year than ever before, and part of it may be due to some cribs that have been put in above us by the North Chicago Improvement Company.

The CHAIRMAN. Now, you want to protect that, to make a protection there?

Captain Ross. We want to protect that.

The CHAIRMAN. What will it cost you?

Captain Ross. I think we can do that with the funds we have. We have asked for \$10,000 in the next year's maintenance.

The CHAIRMAN. What other work has since been done out there?

Captain Ross. The water mains have been practically completed,

and all have been tested with the exception of the 12-inch mains, which can not be tested until the mains are run across the bridge. A contract has been let for that purpose, and as soon as the bridge is completed those mains will be run across and the 12-inch mains tested, and that will complete the water mains.

The CHAIRMAN. This year you are asking for—

Electrical mains and conduits, heating mains and concrete conduits, heating station equipment, power-plant equipment, water-supply and sewage disposal, two hundred thousand dollars.

What are those electrical mains?

Captain Ross. In the work we have in hand we are going to put down the electrical mains, the water mains, and sewer mains, and all the water and electrical and sewer work before we put the buildings up. Those electrical mains are the mains which you see laid down in any city, with the ordinary earthenware conduits; but they will be required to carry wiring all over 282 acres of land.

The CHAIRMAN. What is the heating station equipment?

Captain Ross. On account of the conditions there that power house will have to go on the beach and out in the lake, and in the heating proposition what is desired is the hot-water system.

The CHAIRMAN. Hot water and hot air?

Captain Ross. Hot water. The idea of that is that we propose to take 1,800 horsepower or boiler power and conduct that through 150 kilowatts electric power. Then with that we steam, and we propose to heat the whole of that institution. The difference between steam and hot water is just this: It will require the same plant to put the live steam in, but the cost of maintenance year after year is going to be immense, the question of packing of valves and covering the pipes, the protection of the pipes, of lagging, and so forth, is going to be very expensive, whereas with hot water that will not enter.

The CHAIRMAN. You believe that will be more economical?

Captain Ross. Yes; decidedly more economical; and more than that, you have the control of the heat.

The CHAIRMAN. You speak about the water supply and the sewage disposal.

Mr. ROBERTS. Before we leave that, may I ask the Captain a question?

The CHAIRMAN. Certainly.

Mr. ROBERTS. It is the design to heat all the buildings from the central heating plant?

Captain Ross. Yes, sir; from the central heating plant.

Mr. ROBERTS. Have you any question as to the possibility of sending the water over those lines?

Captain Ross. No, sir; none whatever.

Mr. ROBERTS. You can keep up heat in the pipes?

Captain Ross. That is the point of these conduits. These conduits are made of reinforced concrete. They are large enough for a man to walk through, and we will have control of those pipes so that instead of digging up your grounds those conduits will be open so that all our water mains and steam mains and sewerage will be in the conduit, and the roof of that conduit will be the sidewalks.

Mr. ROBERTS. Is it your idea to run your electric wires in the same conduit?

Captain Ross. No; you can not do it.

Mr. ROBERTS. What is the objection to that?

Captain Ross. In the first place, it would require very much more of a main and the use of terra cotta. You run your electric wires through, and you put them right in the ground, and it is right there just as it is in the city.

Mr. ROBERTS. Would it not be desirable to run these electric wires in this tunnel, as I understand it is, as far as practicable, and then continue, where you have to go beyond the tunnel, with the pipe?

Captain Ross. The cost would be very much more, and there is a question of the electrolytic action there. They do not want the water mains and electric mains together if they can help it.

Mr. ROBERTS. If I understand correctly, the plan is to make a tunnel, like, and in this tunnel you will carry your steam pipes and hot-water pipes and your sewer pipes?

Captain Ross. No, sir; such sewer mains as we can carry through there will be carried, but as a rule these are in the front of the buildings and the sewer mains are in the rear of the buildings. Some of them will go in there. Everything we can put in those conduits will go in.

Mr. ROBERTS. I do not understand why you can not install your electric wires in that tunnel without danger of electrolysis. Insulate the attachments and insulate the wires themselves. Then you have your wires where you can get at them conveniently.

Captain Ross. The engineers seem to think that it is not good practice, and the cost will be very much greater.

Mr. ROBERTS. There is great complaint in all the cities now, even, of the underground conduit. They say that the electricity is affecting all the water pipes. So that the electrolysis exists, it seems to me, whether you have your wires in a separate pipe conduit or in the tunnel.

Captain Ross. They would not be in so close contact if they were in the separate conduit.

Mr. ROBERTS. I just wanted to get the idea of it.

The CHAIRMAN. What about this water supply and sewage disposal? What is that going to cost you?

Captain Ross. The filtration plant and the sewage disposal will cost \$75,000.

The CHAIRMAN. For the whole thing?

Captain Ross. That is just the plant itself; none of the connections. The preparation of the ground does not come into that. For instance, the sewage-disposal plant will be on the south side of the harbor, and there is a sort of hogback there. We shall have to cut both ways. First, we will have to drive the sheath piling out in the lake in order to retain this earth, and at a level of 14 feet we put the sewage-disposal plant. The question of the cost of that is still to be considered, because if we can we want to cover the septic tanks over with earth and sod them down, so that it will be an attractive feature of the plant. Otherwise they will be of brick and will remain in sight, and it is not a very sightly feature. But the plant we have evolved so far, I think, is the best plant I have found in the country. I have inspected many of them and have found a great many of them that were good, but this system is the best that has been evolved in the country.

Mr. ROBERTS. What is the system? Do you take your sewage into a chamber and then mix some antiseptic or lime with it?

Captain ROSS. No; the system is just this: You cut out from your sewage system all your storm water and all street washings, so that you get nothing in your sewer pipes but the ordinary house material from your kitchens and from your water-closets. That is thrown in what are called septic tanks, and there are usually four or six. Now, it depends upon the amount of richness of the material how long it remains in the septic tank. If it is very rich eighteen hours is all that is necessary. It runs from eighteen hours to thirty-six hours. There is a scum which forms on this. It is broken up in this septic tank.

Mr. ROBERTS. How is it broken up?

Captain ROSS. There is an agitator.

Mr. ROBERTS. It is done by machinery?

Captain ROSS. Yes. There is a scum forms on it about 4 to 6 or 8 inches thick, and in that scum is the microbic and anaerobic action that takes place, of these little microbes eating each other—that is what it amounts to; so that at the end of eighteen or thirty-six hours it is then run off into what is called a basin. Passing before that there is an aerator, and in this case we have decided on a little pump in the basin in front which will throw the matter into the air and make the aeration very much quicker.

Mr. ROBERTS. Can you run that aerator with its fountain out in the grounds in winter? Will it not freeze up?

Captain ROSS. No; because the water is warm in it.

Mr. ROBERTS. When it is thrown into the air what does it fall into?

Captain ROSS. It falls right back into this little basin, and away it goes from that into the pipes.

Mr. ROBERTS. Do you think that is going to be warm enough so that it will not freeze up?

Captain ROSS. If necessary we will put a little frost-proof house over it, and admit the air, which will be warm about it. For instance, at Mansfield, Ohio, they aerate there by means of water steps.

Mr. ROBERTS. A little cascade?

Captain ROSS. Yes; a little cascade; and they have no trouble with it at all.

Mr. ROBERTS. Let me ask you, in the process of disposal of the sewage which you propose, do you put any antiseptic in it?

Captain ROSS. No; there is no necessity for it. After it has passed through the second bed it is 95 per cent pure and as clear as crystal.

Mr. ROBERTS. Is there not some process in this plant after which a thick residue is left?

Captain ROSS. That depends on the intelligence of the man who is going to attend to it. If he is an intelligent man and knows his business there will be very little. The sludge that is deposited in that water, in the septic tank, or that is deposited on the top of the beds in five years did not amount at Mansfield to three cartloads. There was practically nothing in the beds, and they were badly handled.

Mr. ROBERTS. After this scum is taken off, that, I understand, is what is thrown into the air and aerated—the scum?

Captain ROSS. No; the water.

Mr. ROBERTS. The whole business. What becomes of the scum?

Captain Ross. The scum disappears with the water. It is a gradual absorption. First it is formed, and this microbic action takes place.

Mr. ROBERTS. Then where is the final product—the water and sludge, and everything together—deposited?

Captain Ross. That goes into the aerator, and from there into the beds, which are about 5 feet deep, composed of slag and granite. Burnt slag is about as good as anything, starting in with lumps from 3 to 4 inches and going right to the top with a gradual diminution until on top it is what is called "buckwheat."

Mr. ROBERTS. That is a sort of filter?

Captain Ross. That is what it is, and this action takes place in this first bed, but in the second bed there is no action. At Mansfield, which is considered the sample plant of the country, the economics of the question were not considered at all, because for the garbage crematory they had to have the fuel and the pumps, and all that, and all that could have been utilized in the production of municipal lights; and in the handling of the separate tanks they did not even consider whether two tanks would do the work, but they used all four when two would have done the work better than the four.

Mr. ROBERTS. How often does this slag, or whatever you use for filtration, have to be removed?

Captain Ross. At Mansfield it had been in for five years, and they thought they ought to take off about a foot of it on the surface. It was not handled properly. The material was not diffused properly.

Mr. ROBERTS. What becomes of the odor in this process?

Captain Ross. There is very little, if it is properly managed.

Mr. ROBERTS. I suppose the final product is discharged into the lake.

Captain Ross. It is scattered off over there.

Mr. ROBERTS. Yes.

Captain Ross. I took a bottle of it right where it discharged into the little stream at Mansfield. The stream was the color of molasses, and the material of the little cascade going into it was as clear and pure as could be. There was no formation of green material, such as you usually find. I took this bottle to the doctor and asked him what it was, and he said that he did not know, but he took a drink of it before I could prevent him.

The CHAIRMAN. This is the best system that you know of?

Captain Ross. Our system that we propose is, I think, an improvement on the Mansfield system.

The CHAIRMAN. You are asking here for—

Furniture, commandant's quarters, three thousand five hundred dollars, and furniture, six officers' quarters, at one thousand five hundred dollars each, nine thousand dollars.

Will you need all of that money to furnish those quarters?

Captain Ross. This year?

The CHAIRMAN. Yes.

Captain Ross. I am very sure I will not need the furniture for the commandant's quarters this year.

The CHAIRMAN. You can strike that out?

Captain Ross. Yes.

The CHAIRMAN. When do you expect to get this whole plan finished?

Captain Ross. We expect to have the plans completed and the contract awarded before the frost is out of the ground, and the contractor is to have an opportunity to haul in the material and commence the work just as soon as the frost is out of the ground. We want one contractor, if we can get him, and with the methods of a man that is capable of handling a large amount of work of that kind it should be completed in two years.

The CHAIRMAN. In two years?

Captain Ross. Yes. Now, there is a question which comes in there. The Secretary has recommended \$750,000.

The CHAIRMAN. Can we not reduce that?

Captain Ross. No; I should say add to it.

The CHAIRMAN. The final payments will not be made until the end of two years.

Captain Ross. I know, but on that the Secretary can, under the law, enter into contract to the amount of \$1,900,000; but my impression is that if you appropriate \$750,000, if we have any luck at all, the buildings should be completed before the end of two years.

Mr. KITCHIN. This item at the bottom of page 102 says that is to cost \$1,250,000.

Captain Ross. The total is \$1,250,000.

Mr. KITCHIN. This says to cost \$1,250,000. It seems that is the limit of the cost of that.

The CHAIRMAN. The limitation was fixed at \$2,000,000 for those buildings.

Mr. KITCHIN. Two million dollars?

The CHAIRMAN. Last year.

Captain Ross. Last year they appropriated \$750,000.

The CHAIRMAN. That must have been a mistake, \$1,250,000.

Mr. KITCHIN. It says here—

To complete buildings in accordance with the provisions of the act of Congress approved June twenty-ninth, nineteen hundred and six, to cost one million two hundred and fifty thousand dollars, seven hundred and fifty thousand dollars.

Captain Ross. That is for the completion of the buildings over and above the \$750,000 heretofore appropriated.

Mr. ROBERTS. Just one more question in regard to the sewage. I understand you are going to separate the house water from the surface water?

Captain Ross. Yes, sir.

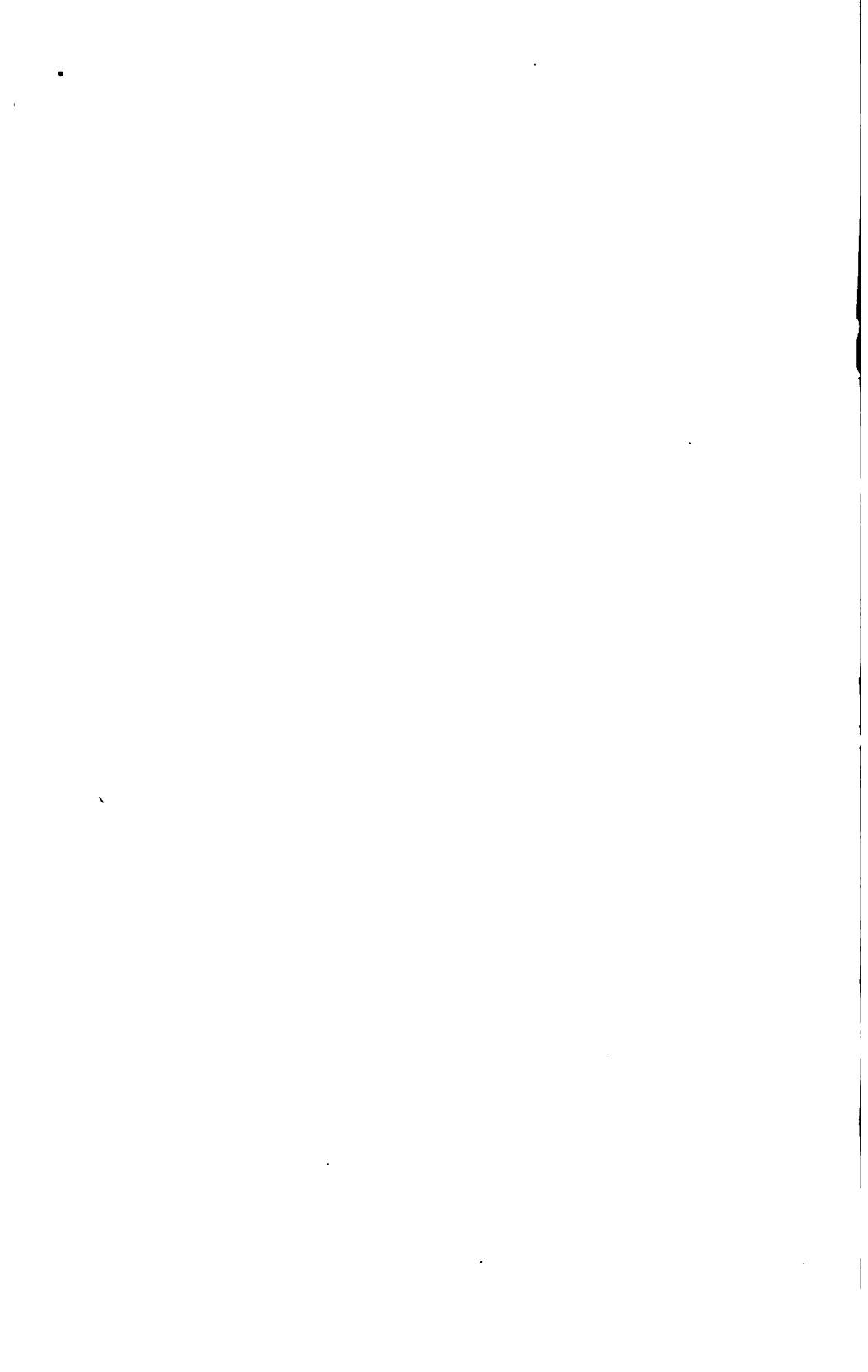
Mr. ROBERTS. How are you going to separate it from the surface water?

Captain Ross. The surface water goes into a little creek and into the harbor.

The CHAIRMAN. Are there any other questions? If not, we will present Admiral Mason to the committee.

Captain Ross. There is one point there, in regard to the Secretary cutting that down, to cost \$393,000. Our original estimates were \$393,000 for the electrical mains and conduits and heating mains and conduits and heating station equipment and power plant and water supply and sewage disposal, for which \$200,000 is appropriated this

year. I wanted the understanding on that, because we are now preparing the plants for the installation of our power plant, and on that I want to install the hot-water system; because it is the economical system for the future work, and in the construction of this institution everything that pertains to economy has been considered. The maintenance will cost the minimum. We are putting in coal and ash handling plants, and overhead bunkers, and the railroad train goes right over the power house; so that it should be a minimum cost, and three men should do all the work in that institution, one man in charge of the refrigerating plant and the pumps, another man in charge of the electrical plant, and a third man in charge of the boiler plant. So you can say that the cost is going to be a minimum.



[No. 10.]

**STATEMENT OF BRIG. GEN. GEORGE F. ELLIOTT, COMMANDANT,
ACCOMPANIED BY COL. FRANK L. DENNY, QUARTERMASTER,
AND COL. GREEN C. GOODLOE, PAYMASTER.**

THE COMMITTEE ON NAVAL AFFAIRS,
Tuesday, December 18, 1906.

The committee this day met, Hon. George E. Foss in the chair.

The CHAIRMAN. The first item is on page 170 of the bill,:

Pay, Marine Corps: For pay and allowances prescribed by law of officers on the active list, five hundred and ninety-eight thousand one hundred and forty dollars, and for the following additional officers here authorized: One lieutenant-colonel, assistant adjutant and inspector; one lieutenant-colonel, assistant quartermaster; one major, assistant quartermaster; four captains, assistant quartermasters; one major, assistant paymaster; three captains, assistant paymasters; fifteen captains, fifteen first lieutenants, seventy-six thousand and twenty dollars, a total of six hundred and seventy-four thousand one and sixty dollars.

Now, take the first part of that item, \$598,140. That is for the pay and allowances of officers now on the active list, is it?

Colonel GOODLOE. That includes all with the additional ones submitted.

The CHAIRMAN. You submit these additional officers whose pay would amount to \$76,020. Will you please state the necessity for the additional officers?

General ELLIOTT. Sixty-five per cent of the officers in the Marine Corps are serving aboard ships or in the Tropics—that is, taking myself and counting all the staff. They serve two years and two years and six months in the Tropics. There is no relief for them. A man comes home from the Philippines to-day and he will have to be ordered to sea on a battle ship almost to-morrow. We have not officers sufficient to command the men. Then, there is a fearful block in the captains' list of the line. The men are all nearly of the same age. In fact, some of the junior captains in rank are not junior in age to the senior captains. We have asked this promotion in the staff to break this block.

The CHAIRMAN. These are all staff officers?

General ELLIOTT. We have asked that 11 line officers should go into the staff to break the block. Many of the captains are fit for staff officers and like the duty. If they transfer from a captain in the line to a captain in the staff their juniors in the line will pass up numerically in grade. If these promotions are made and 15 captains and 15 first lieutenants for the line are allowed, it will increase the corps by 41 officers. We sadly need these officers. There is no post that has its complement of officers or anywhere near it.

The CHAIRMAN. How are you situated in the matter of line officers?

General ELLIOTT. We are very, very short.

The CHAIRMAN. Which do you regard as the more important, the additional line officers or staff officers?

General ELLIOTT. The trouble is this: If I do not get the staff officers they will take them from the line and make them acting in the staff. We have an acting paymaster in the Philippines disbursing money for 1,300 men. They not only take the line officers away, but the quartermaster and the paymaster want the best. In putting them into the staff it allows a promotion, sometimes in grade when it is a first lieutenant, but if it is a captain he gets no promotion in rank, but it breaks this block in the captains' list, and unless it is done, promotion of the junior captaincy is hopeless. It will be thirty years before he reaches the higher grade.

The CHAIRMAN. How is it in the line; do you have about the same number of officers for each company as the Army does?

General ELLIOTT. We have about half the number that the Army has. We have one lieutenant-colonel to fourteen hundred men. We have one colonel to fourteen hundred men. We have one major to 585 men. We have one captain to 122 men; the Army has one captain to 66 men.

The CHAIRMAN. How are you situated in regard to captains?

General ELLIOTT. We are short still. You take 9,000 men, and a regiment alone requires—let the staff go entirely—44 officers, and multiply that by 9, making 396 for 9 regiments. We have now only 278 officers, line and staff.

The CHAIRMAN. For instance, how many men do you have to a captain?

General ELLIOTT. In our corps?

The CHAIRMAN. Yes, sir.

General ELLIOTT. We have 122 men.

The CHAIRMAN. In the Army how would it run?

General ELLIOTT. If the Army is full, 100,000 men—

The CHAIRMAN (interrupting). As the Army is situated to-day.

General ELLIOTT. There is a captain to about 66 men.

The CHAIRMAN. If the Army was full up to 100,000?

General ELLIOTT. And they did not increase in war time, they would have a captain for 112 men.

The CHAIRMAN. How many lieutenants do you have?

General ELLIOTT. We have a first lieutenant and a second lieutenant to a company, the same as in the Army.

The CHAIRMAN. Your company consists of how many men?

General ELLIOTT. We have a captain for about 122 men.

The CHAIRMAN. That is more than a company ordinarily?

General ELLIOTT. Yes, sir; we have not the full quota of officers and never have had.

Colonel DENNY. Our companies are about 83 men.

General ELLIOTT. You take on a battle ship and they insist on not having over 60 or 70 men, and we are obliged to put a captain there. Take the barracks here in Washington; there is not a captain there—three first lieutenants and a couple of hundred men. We have not got the force.

The CHAIRMAN. Do you need more line officers or more staff officers?

General ELLIOTT. We need both equally—11 staff, 30 line.

The CHAIRMAN. Do you mean to say the line officers would go into the staff?

General ELLIOTT. A great many of them would.

Colonel DENNY. It is the only way they can get into the staff, by transfer from the line.

The CHAIRMAN. Are there individuals who prefer to go into the staff?

General ELLIOTT. Yes, sir; they like it.

The CHAIRMAN. Shore duty?

General ELLIOTT. They go with the troops to the Philippines.

The CHAIRMAN. Why should they prefer this duty?

General ELLIOTT. Some men prefer that duty. They like buildings, looking after clothing, etc. It is a promotion in a certain way, and then they do not have the night duty. There are a great many other things. Some prefer that duty to commanding men.

Colonel GOODLOE. There are men not physically constituted to enjoy life on the ocean. Some of them are subject to seasickness.

Colonel DENNY. I think the broader reason is that some men are business men and some military men. The military men serve with the troops and the business men in the staff. The staff has to do with the business and not so much the military.

The CHAIRMAN. Are they reducing the number of marines on the ships?

General ELLIOTT. No, sir.

The CHAIRMAN. Do you feel as though you really needed the additional staff officers?

General ELLIOTT. Yes. It gives promotion to the line and prevents the staff from drawing on the line to perform those duties.

The CHAIRMAN. Irrespective of promotion, the question is whether you need them.

General ELLIOTT. We do need them.

Colonel DENNY. It seems to me, in addition to what the General has said in relation to promotions, and more important than that, is the matter of efficiency, and solely I would put it on that ground, but incidentally and in addition comes the question of promotion. The experience of four or five years has shown, since the passage of the personnel act, that by having regular officers in the Pay Department, the Adjutant-Inspector's Department, and the Quartermaster's Department, more especially in the Pay and Quartermaster's Department, there has been a considerable economy in the expenditure of money, for the reason that you have experienced men first to advertise for bids and then to open bids and to make agreements and contracts, to inspect buildings under agreements and contracts, and generally to look out for stores, supplies, and equipments. The whole effect is greater efficiency in administration, also economy in expenditures. The same rule applies to the military which holds in civil life; that is, that when special work is to be done an expert therein is selected to do the work, not a man who is inexperienced and more or less inefficient.

Officers in my department to be valuable must be men not only of high character and physically sound for field service, but be specially

trained to procure, preserve, and issue all material used by the corps, such as public buildings, clothing, rations, arms, ammunition, transportation, forage, fuel, etc. They disburse the money provided by Congress for the corps, except that for pay.

To-day we only have 12 regular quartermasters and 8 or 9 acting quartermasters. The latter are detailed from the line. The result is a hardship for the line and less efficiency for the staff.

General ELLIOTT. Then he is easily checked because he is bonded.

Colonel DENNY. If he should make a mistake and any expenditure was contrary to law and not in conformity with the rules of the accounting officers of the Treasury, he is pecuniarily responsible. He gives a bond, and if he fails to make good, his bondsmen must. The line officers who are temporarily detailed to this duty are not required to give bond.

The CHAIRMAN. I understand, in the first place, that your organization is a military organization, and assimilated to the Army?

General ELLIOTT. Yes, sir.

The CHAIRMAN. That is, it is really a sailor and soldier organization, so to speak?

General ELLIOTT. Yes, sir.

The CHAIRMAN. I wish you would put in the hearing a comparative statement of the Army and Marine Corps.

General ELLIOTT. There is one other thing. We need these men for the reason that by July 1, 1908, the Navy will be increased by 15 large vessels, and we need these men now to prepare them, enlist them, so they shall be ready for duty with the new vessels. We can not get them offhand. It is hard work recruiting, especially when the times are so flush, and it will take 900 men to equip those 15 ships.

The CHAIRMAN. Now, passing on to the next item, "Pay of officers, prescribed by law, on the retired list," \$115,000. That is the same as last year. You figure that all out in accordance with the number and rank of those on the retired list?

Colonel GOODLOE. Yes, sir.

The CHAIRMAN. The next item is "For pay of noncommissioned officers," etc., \$1,883,555.20. That is the same as last year?

Colonel GOODLOE. Yes, sir.

The CHAIRMAN. Then there is the language—

Provided, That hereafter privates regularly detailed and serving as cooks, shall receive, in addition to the pay otherwise allowed by law, the following: First-class cooks, thirty-two dollars per month; second-class cooks, twenty-two dollars; third-class cooks, seventeen dollars; and fourth-class cooks, twelve dollars.

Please explain the necessity of that.

General ELLIOTT. In the old days we used to get cooks that had been to sea a good deal and knew how to cook. The class of men coming in to-day we can not find among them a man who knows how to cook who will do the work for the private's pay. We have the ration issued, but unless it is cooked well, why the men become dissatisfied.

The CHAIRMAN. What do you have, the army or the navy ration?

General ELLIOTT. The army ration. These cooks are up every morning by 3 o'clock and they work until after supper in the evening.

The CHAIRMAN. What does a first-class cook get?

General ELLIOTT. A private's pay.

The CHAIRMAN. What does that amount to?

General ELLIOTT. Thirteen dollars. If he is an old man he may get \$15 or \$16.

The CHAIRMAN. Take a man who would go upon the list as a first-class cook, what would he get? I suppose some of your men would become first-class cooks under this provision?

General ELLIOTT. We give them no rank, but wish to give them more pay for hard work.

The CHAIRMAN. What do they get now, the highest paid cook in the service?

General ELLIOTT. They get the regular pay and then they get \$10 a month. That is made up to them.

The CHAIRMAN. That is \$23?

General ELLIOTT. Yes, sir.

The CHAIRMAN. What does the second-class cook get?

General ELLIOTT. The pay will not average over \$15.

The CHAIRMAN. What they get is \$13?

General ELLIOTT. Yes, sir; if they have been four years in the service they get \$15 during the fourth year.

The CHAIRMAN. Would they not get a regular increase on reenlistment?

General ELLIOTT. Yes, sir.

The CHAIRMAN. How much would that amount to?

General ELLIOTT. After serving two years they get \$1. They get \$15 at the end of the enlistment. They begin a second enlistment on \$16, and the second year after reenlistment they get \$18, and it can run up to \$21. That is the highest pay.

The CHAIRMAN. What do the army cooks get?

General ELLIOTT. By special acts of Congress dated July 7, 1898, and March 2, 1899, the Secretary of War is authorized and directed to cause to be enlisted in each company two cooks, who shall have the pay and allowances of sergeants of infantry (that is, \$18 a month during the first two years of enlistment, with the usual increase for continuous service). The Army Regulations provide for the payment of 25 cents a day to cooks in addition to the above.

These acts do not apply to the Marine Corps, because they do not come under the law establishing the pay of the Army, they having been enacted to enable the Secretary of War to meet special requirements.

When 4 army companies, or about 260 men (the strength of an army company being about 65 men), are assembled at a post, they are allowed 2 cooks to each company, or a total of 8 cooks to 260 men. The pay of a cook in the Army being about \$25 a month, the cost of 8 cooks for 260 men is about \$200 a month. In the Marine Corps there are only 4 cooks to a post with a strength of 400 men. If the strength of a post is less than 400 men, the number of cooks is less. Hence the pay of cooks for 400 men in the Marine Corps would be but \$135 a month, whereas the pay of cooks for 260 men in the Army is \$200 a month.

It is not desired to give the proposed cooks in the Marine Corps any rank, but merely to give them such extra compensation, in addition to their regular pay as privates, as will be commensurate with the work which they are required to perform.

The Marine Corps ration, if properly cooked by experienced men, is palatable and sufficient. At present there is considerable waste, which is due to inexperienced cooks, and this waste it is hoped to prevent by giving them extra compensation. We ask Congress for no extra appropriation to pay our cooks, provided, as requested, the amounts paid to them in addition to their regular pay as privates may be deducted from the appropriation "Provisions, Marine Corps." These amounts we can save by employing trained men as cooks.

[NOTE.—Answering the question of the chairman of the committee, "What do the army cooks get?" General Elliott stated before the committee that they did not get any specified pay, but that, in effect, they were on the same basis as the cooks in the Marine Corps. Since receiving this statement for correction it develops that army cooks are paid as above stated.]

The CHAIRMAN. There is no appropriation provided here for these cooks?

General ELLIOTT. We have money enough. We could pay it out of the rations. We save enough and turn in enough money every year to pay the cooks.

Mr. KITCHIN. I notice that you put down the fourth-class cooks at \$12. Do any of your cooks receive as little as \$12 now?

General ELLIOTT. This is an increase. They get the regular pay of a soldier now. If a man is on his first enlistment he gets \$13, and we have asked to give him \$12 additional.

Mr. KITCHIN. This \$32, \$22, \$17, and \$12 is additional to their pay?

General ELLIOTT. Yes, sir. They are the hardest worked men in the service.

The CHAIRMAN. The next item is—

For the pay as prescribed by law for the following additional men here authorized: Two sergeants-major, twenty-five quartermaster-sergeants, thirty-nine gunnery-sergeants, ninety-four sergeants, one hundred and sixty-nine corporals, twenty-five drummers, twenty-five trumpeters, and one thousand six hundred and thirty-three privates, three hundred and forty thousand six hundred and sixty-eight dollars.

What is the necessity for these additional officers and men?

General ELLIOTT. We are unable to do the work required of us now, and when the 15 new ships come out we will send 900 or 1,000 marines on board those ships. Our men are doing day on and day off and not filling all the posts required. At present we have only 26 marines at Annapolis.

The CHAIRMAN. Will you kindly furnish a statement showing where the men are at the present time?

General ELLIOTT. Yes, sir.

The CHAIRMAN. And how many there are on board the ships and on what ships they are?

General ELLIOTT. Yes, sir.

The CHAIRMAN. The next item is "Pay and allowance of retired enlisted men," \$67,422. I suppose that has been figured out?

Colonel GOODLOE. Yes, sir.

The CHAIRMAN. The next item is "Undrawn clothing: For payment to discharged soldiers for clothing undrawn," \$93,569.98. There is an increase of about \$16,000. Why is that necessary?

Colonel GOODLOE. It amounts to fully that much, and of course this is an appropriation in which if the number of men discharged

with the clothing allowance does not amount to that amount, of course that money is not paid out, but the large number of discharges necessitates an increase for the clothing allowance, and that really is a very low estimate to pay men for clothing upon discharge from the service.

Colonel DENNY. If the clothing is not issued to them and the money is, we have the clothing on hand. So it is as broad as it is long. They either get the money or the clothing.

The CHAIRMAN. They are entitled to how much—each man?

Colonel DENNY. About \$67 a year.

The CHAIRMAN. Equivalent to how many suits?

Colonel DENNY. It is divided up. A fixed number of garments per man per year. The allowance is prescribed annually in an order issued by the Secretary of the Navy.

The CHAIRMAN. The next item is, " Mileage: For mileage to officers traveling under orders without troops, \$40,000." That is an increase of \$10,000. You get army mileage?

General ELLIOTT. Yes, sir.

The CHAIRMAN. Seven cents?

General ELLIOTT. Eight cents.

Colonel DENNY. We get the navy mileage, 8 cents, by law.

The CHAIRMAN. You have to look out for your own baggage?

General ELLIOTT. Yes, sir.

The CHAIRMAN. The army mileage is 7 cents, with additional for baggage?

Colonel DENNY. Yes, sir.

The CHAIRMAN. Is it practically the same thing?

Colonel DENNY. Yes, sir.

The CHAIRMAN. Some of the army people claim that you get the best of it.

Colonel DENNY. I do not think so. They used to get 4 cents a mile and now they get 7 cents and the transportation of baggage.

Colonel GOODLOE. That was brought about some time ago, when the officers were traveling in the Indian country.

The CHAIRMAN. What I want to get at is whether the transportation amounts to any more than 1 cent a mile?

Colonel DENNY. A captain would be allowed about 1,800 pounds of baggage. If you transport that from New York to San Francisco you can see what that would be, and in an emergency it would be sent by express.

The CHAIRMAN. What is allowed a private?

Colonel DENNY. He takes his on his back. A private gets only his actual transportation.

The CHAIRMAN. You think it amounts to the same?

Colonel DENNY. I think the Army has a little the better of it.

General ELLIOTT. They have to go through some business transaction, which is annoying, because they have the bonded roads. That gives them a good deal of trouble. We have nothing to do with the bonded roads.

Mr. KITCHIN. There is an increase of \$10,000 I notice in this item of mileage to officers. Was there any deficiency in that item last year? I suppose there was no deficiency, but was it sufficient?

Colonel GOODLOE. The \$30,000 was exceeded.

General ELLIOTT. There is another thing. We have to go West

recruiting a good deal for our men, and it keeps us running mighty close to make both ends meet. The Comptroller has decided that if a man enters the service as a second lieutenant he shall be given mileage from his home to the station to which ordered. They did not do that formerly. That would be the mileage of forty-one officers from their homes to their first station.

The CHAIRMAN. Is the main reason for asking for this increase due to the expectation of increasing the number of officers?

General ELLIOTT. No; that is but one item—a new one.

The CHAIRMAN. Would you get these additional officers from the Naval Academy?

General ELLIOTT. No, sir; they come from civil life. The Naval Academy could not furnish them. They have hard work to furnish their own.

The CHAIRMAN. Do they come from the ranks?

General ELLIOTT. We have been very fair, and we have 22 officers from the ranks. Some of the best duty officers we have are from the ranks.

The CHAIRMAN. The next item is—

For commutation of quarters of officers on duty without troops where there are no public quarters, twenty thousand dollars.

There is an increase of \$5,000. •

Colonel GOODLOE. That increase has been necessitated by the fact that so many officers are going on duty of recruiting. That has increased it. Of course they must have provision made for them while they are on this duty in different portions of the United States. Of course where they are serving with troops it is commutation of quarters. If an officer serves with troops and there are no quarters then he receives the hire of quarters.

The CHAIRMAN. Is that so in the Army?

Colonel DENNY. It is the Army law.

The CHAIRMAN. There was a question that came up in regard to the naval bill, and the Senate put on a provision giving to naval officers commutation of quarters where they were serving without troops. I think the words "without troops" were used.

Colonel GOODLOE. It is just the same as the Marine Corps.

The CHAIRMAN. And the chairman of the Committee on Military Affairs, Mr. Hull, said that if they got that they would get something that the Army was not getting.

Colonel DENNY. I remember that discussion very well.

The CHAIRMAN. And I want to know just what the fact is.

Colonel GOODLOE. We got it from the Army. That is the army law and regulation. Then the Navy gets that from the Marine Corps.

Colonel DENNY. The fact is that if an officer is serving with troops where there are no public quarters under the law he gets an allowance for hire of quarters. In other words, the Quartermaster's Department actually hires quarters for him and pays for the hire and the officer lives in those outside quarters. If he is serving at places such as the Navy Department, the War Department, or the headquarters of the Marine Corps, where there are no troops, he gets commutation of quarters at \$12 per month per room. Officers of various grades are allowed so many rooms per month, and that number multiplied by \$12 shows the amount he gets for commutation of quarters.

The CHAIRMAN. The next item is "Pay of civil force: In the office of the Brigadier-General Commandant," and you are asking for the increase of the salary of the chief clerk from \$1,600 to \$1,700. Is that an old clerk?

Colonel GOODLOE. Yes, sir. The Secretary increased his pay \$100.

General ELLIOTT. This clerk has been in the service ten years and is under 36 years of age.

The CHAIRMAN. The next item is the office of the assistant paymaster, San Francisco, Cal.

Colonel GOODLOE. There is one clerk there.

The CHAIRMAN. You want the words "San Francisco, California," to be inserted in that paragraph?

Colonel GOODLOE. I have never seen the necessity of that.

General ELLIOTT. It makes it so that we never can change the clerks. It is a good thing sometimes to change them. We have a man in the Philippine Islands who has been serving five years and we can not get him away.

The CHAIRMAN. In the office of the assistant paymaster, Washington, D. C., you are asking for one clerk at \$1,300. Have you not any clerk here?

Colonel GOODLOE. No, sir. The assistant paymaster has not had a clerk since he has been here.

General ELLIOTT. He has been doing all his own work, and besides has a lot of money that he is responsible for, and I think he should have a clerk—some man he can trust.

The CHAIRMAN. Who does the work now—an enlisted man detailed?

General ELLIOTT. Yes, sir. Lieutenant-Colonel Richards works hard.

Mr. KITCHIN. Is it contemplated to keep that man here and put him up to \$1,300 or to get some other man for that place?

General ELLIOTT. They will probably get some civil-service clerk.

Mr. KITCHIN. Is there no way of making this man who is now performing the duties the clerk?

Colonel DENNY. No, sir.

Mr. KITCHIN. It looks to me, if we are going to authorize the pay, the present man should have it.

Colonel GOODLOE. In a case of that kind it would be necessary for an enlisted man to be discharged and after qualifying under the civil-service law to be appointed just as any other person.

General ELLIOTT. If Lieutenant-Colonel Richards wants this man he will try to get it done by the Secretary.

The CHAIRMAN. In the office of the adjutant and inspector you are asking for the increase of the salary of the chief clerk from \$1,600 to \$1,700, and in the office of the quartermaster the same.

Colonel GOODLOE. Yes, sir; that is just the same as the other—just a hundred-dollar increase.

The CHAIRMAN. There is no other change until we get down to the item—

For interest on soldiers' deposits, four thousand dollars, and so much as may be necessary to refund such deposits; and the money herein specifically appropriated for the pay of the Marine Corps shall be disbursed and accounted for in accordance with existing law as pay of the Marine Corps, and for that purpose shall constitute one fund.

How many deposits have you under the law passed last year?

Colonel GOODLOE. There are no deposits at all as yet.

The CHAIRMAN. What interest do you pay, 3 per cent?

Colonel GOODLOE. Four per cent. Just as soon as the stationery blanks and everything of that sort are furnished by the Public Printer these deposits will be received and accounts will be opened, but of course all that matter has to go through the Department and the Comptroller, and up to this time nothing has come back to me for the purpose of commencing and opening this banking system, to enable the enlisted men to make deposits and receive interest. We expect to do that very soon, but up to this time no action whatever has been taken, because we got nothing from the Department to authorize the printing.

The CHAIRMAN. Is this law the same as the army law?

General ELLIOTT. Just exactly.

Colonel GOODLOE. We framed it from both the army and navy laws.

General ELLIOTT. If they had put "the Marine Corps" in the law it would have been the same thing.

The CHAIRMAN. This item says, "For interest on soldiers' deposits." You call your men soldiers?

General ELLIOTT. Yes, sir.

The CHAIRMAN. The next item is, "In all, pay Marine Corps, three million two hundred and sixty-eight thousand nine hundred and eighty-six dollars and forty-six cents." The increase is made up largely by the two items, as I recall?

Colonel GOODLOE. Yes, sir.

The CHAIRMAN. First, the increase in the number of officers of the staff, \$76,000, and then the increase in the privates, \$340,000?

General ELLIOTT. Yes, sir.

Colonel GOODLOE. I presume you will embody that section which makes the whole appropriation one sum, as appears in the estimate?

Colonel DENNY. That is in italics as if it is new law. That is existing law.

The CHAIRMAN. You have it right in the paragraph above, "In all, for pay of civil force."

Colonel GOODLOE. In regard to one other item. Of course, you are familiar with the law that gives the President the right to appoint officers on the retired list one additional grade for war services?

The CHAIRMAN. Yes, sir.

Colonel GOODLOE. There was a number of names sent to the Senate and confirmed, and it is not specially mentioned in any of these estimates of appropriation?

The CHAIRMAN. I understand.

Colonel GOODLOE. I have a list which I would like to submit for your consideration.

The list submitted by Colonel Goodloe follows:

Additional pay for retired officers.

Name.	Former rank.	Present rank.	Increase in pay.
<i>Advance one grade.</i>			
R. L. Meade.....	Colonel.....	Brigadier-general.....	\$750.00
W. S. Muse.....	do.....	do.....	750.00
A. S. Nicholson.....	Major.....	Lieutenant-colonel.....	375.00
E. K. Robinson.....	do.....	do.....	375.00
F. H. Corrie.....	Captain.....	Major.....	735.00
F. D. Webster.....	do.....	do.....	735.00
A. S. Taylor.....	do.....	do.....	735.00
E. R. Miller.....	Second lieutenant.....	First lieutenant.....	105.00
<i>Added to retired list.</i>			4,560.00
J. W. McClaskey.....	First lieutenant.....	First lieutenant.....	721.87
<i>Placed on active duty.</i>			
B. R. Russell.....	Lieutenant-colonel.....	Lieutenant-colonel.....	291.67
F. A. Udell.....	First lieutenant.....	First lieutenant.....	210.00
Total increase.....			5,783.64

The CHAIRMAN. The next item is "Provisions, Marine Corps," and this year you are asking for \$678,503. Last year we appropriated \$546,503. There is an increase of \$130,000. What is the necessity for that?

Colonel DENNY. That is to provide provisions for the proposed increase of 2,012 men in the Marine Corps. If that increase in men is not allowed, no increase in money will be required.

The CHAIRMAN. How much do you figure per man?

Colonel DENNY. It is rather a difficult thing to do, but I can submit a table showing the cost of rations at all stations in the Marine Corps. We do that by dividing by the number of stations, which gives the average cost, and multiplying that by the per capita.

The CHAIRMAN. I wish you would furnish that table.

General ELLIOTT. We feed our men for 20 cents or less a day. There are a few posts where it is higher. That is the reason we want the cooks to properly cook the food, and there should be no loss.

Memorandum of ration contracts, Quartermaster's Department, United States Marine Corps, fiscal year ending June 30, 1907.

Post.	Rate per hundred.	Post.	Rate per hundred.
Portsmouth, N. H.....	\$16.73	San Juan, P. R.....	\$28.75
Boston, Mass.....	15.75	Key West, Fla.....	34.50
Newport, R. I.....	21.00	Pensacola, Fla.....	22.20
Iona Island, N. Y.....	35.50	New Orleans, La.....	22.00
New York, N. Y.....	17.22	Sitka, Alaska.....	34.00
League Island, Pa.....	18.75	Bremerton, Wash.....	19.70
Annapolis, Md.....	21.75	Mare Island, Cal.....	15.15
Washington, D. C.....	17.23	San Francisco, Cal.....	15.35
Navy-yard, Washington, D. C.....	17.23	Honolulu, Hawaii.....	20.13
Norfolk, Va.....	15.85		
Charleston, S. C.....	29.00	Total.....	460.29
Port Royal, S. C.....	22.50	Average cost per 100 rations.....	21.44

The CHAIRMAN. The next item is, "Clothing, Marine Corps: For noncommissioned officers, musicians, and privates authorized by law, \$725,920."

Colonel DENNY. There is an increase proposed of \$160,000.

Mr. KITCHIN. That includes the musicians and privates?

Colonel DENNY. It is all for men. The officers buy their own clothing.

The CHAIRMAN. That increase of appropriation comes from the increase in the number of men?

Colonel DENNY. Yes, sir.

The CHAIRMAN. If you do not have the increase in the number of men, you would not need it?

Colonel DENNY. Not entirely. The sum of \$135,000 is required for the 2,012 men, the basis being about \$67 per man for clothing for a year, and the difference between that and \$160,000, \$25,000, is recommended on account of the increase in the cost of labor and material, which is based upon bids received last July and again in October of this year.

Mr. KITCHIN. What is the rate of increase?

Colonel DENNY. It varies very much, depending upon the character of the material. Cotton, for instance, I should think, from 12 to 15 per cent; wool, from 20 to 25 per cent. It depends upon the character of the material. Leather has increased very greatly. It is used in the shoes. Rubber goods have increased very materially. I can give you a table if you so desire.

Mr. KITCHIN. I wish you would supply that data.

[Colonel Denny furnished the following data:]

Statement of articles of clothing issued to enlisted men of the United States Marine Corps.

Algullettes, gold.	Coats:
Blanket, woolen.	Field.
Caps:	Full dress.
Full dress.	Full dress, band.
Full dress, band.	Full dress, second leader of band.
Muskrat.	Full dress, drum major.
Undress.	Full dress, field music.
Undress, band.	Overcoat.
Cover for.	Summer.
Ornament for.	Undress.
Chevrons, field, set:	Drawers:
Sergeant-major.	Heavy.
Quartermaster-sergeant.	Light.
Drum major.	Nainsook.
First sergeant.	Gloves, pair:
Gunnery sergeant.	Cotton.
Sergeant.	Woolen.
Corporal.	Hats:
Chevrons, gold, set:	Field.
Second leader of band.	Figure for.
Drum major.	Letter for.
Chevrons, silk, set:	Ornament for.
Sergeant-major.	Helmet, white:
Quartermaster-sergeant.	Base for.
Drum major.	Spike for.
First sergeant.	Insignia:
Gunnery sergeant.	First-class gun pointer.
Sergeant.	Second-class gun pointer.
Corporal.	Leggings, pair.
Clothing requisition and receipt book.	

Lyres:

Gold.
White metal.

Shirts:

Flannel, olive-drab.
Under, cotton.
Under, heavy.
Under, light.

Shoes:

Arctic.
Leather, black.
Leather, russet.

Shoulder knots:

Gold, pair.
White, with aiguillettes, pair.

Socks:

Cotton.
Woolen, heavy.
Woolen, light.

Stripes:

Noncommissioned officer.
Service.

Suspenders:**Trousers:**

Dress, band.
Dress, field music.
Dress, noncommissioned officer.
Dress, private.
Field.
Summer.
Belt, tan, for.

Table specifying the allowance of clothing to enlisted men of the United States Marine Corps, apportioned to each year of enlistment.

Articles.	Year.					Total.
	First.	Second.	Third.	Fourth.	Fifth.	
Aiguillettes, band	1					1
Blankets, woolen	2					2
Cap, full-dress	1					1
Caps, undress	2	1	1	1	1	6
Cap covers, linen	2	1	1	1	1	6
Cap ornaments	2	1	1	1	1	6
Coat, full-dress	1					1
Coats:						
Undress, lined or unlined	2	1	2	1		6
Summer	2	1		1		4
Field	2	2	1	1	1	7
Chevrons:						
Field, sets	4	3	1	2	1	11
Gold, sets	1					1
Silk, sets	4	1	2	1		8
Drawers:						
Light	2	2	2	2	2	10
Heavy	2	2	2	2	2	10
Gloves, cotton	8	8	8	8	8	40
Hats, field	2	1	1	1	1	6
Hat ornaments	2	1	1	1	1	6
Helmet, white, complete	1					1
Leggins	2	2	2	1	1	8
Letters and figures for field hats, each	2	1	1	1	1	6
Overcoat	1					1
Shirts:						
Flannel	2	2	2	2	2	10
Under, light	2	2	2	2	2	10
Under, heavy	2	2	2	2	2	10
Shoes, black or russet leather	3	3	3	3	3	15
Shoulder knots, pair	1					1
Socks:						
Cotton, pairs, light or heavy	4	4	4	4	4	20
Woolen, pairs, light or heavy	4	4	4	4	4	20
Suspenders	1	1	1	1	1	5
Trousers:						
Dress, band	1		1		1	3
Dress, noncommissioned officer	2	2	1	1	1	7
Dress, field music	2	2	1	1	1	7
Dress, private	2	2	1	1	1	7
Summer	3	1	1	1	1	7
Field	2	2	1	1	1	7

The allowances for men enlisted for four years are those stated in columns first, second, third, and fourth in the above table.

Comparative statement showing unit price of material used in clothing enlisted men of the Marine Corps.

Material.	Fiscal year 1906.	Fiscal year 1907.
Kersey, sky blue.....per yard.....	\$1.82	\$1.81
Coat cloth, dark blue.....do.....	1.95	1.94
Scarlet cloth.....do.....	2.62	2.59
Scarlet flannel.....do.....	.84	.87
Jacket flannel, dark blue.....do.....	1.16	1.22
Shirting flannel.....do.....	.92	1.11
White linen, grass bleached.....do.....	.40	.445
White wadding.....per dozen sheets.....	.3397	.3397
Cotton drilling, unbleached.....per yard.....	.0661	.0748
Muslin, unbleached.....do.....	.05	.0519
Drab lining jeans.....do.....	.06625	.0692
Black padding.....do.....	.0748	.0784
Black silesia.....do.....	.0837	.0874
Black Italian cloth.....do.....	.3563	.355
Stiff canvas.....do.....	.12	.1245
Light canvas.....do.....	.1073	.1278
Tape, khaki color.....do.....	.0045	.006
Khaki suiting.....do.....	.225	.24
Yellow silk lace.....do.....	.105	.1025
Pieces leather, black pebble-grain morocco.....per dozen.....	.20	.24
Hooks and eyes, large, for overcoat.....per gross.....	.35	.32
Hooks and eyes, small.....do.....	.135	.2075
Button, gilt, coat:		
Large, 35-ligne.....do.....	2.60	2.60
Medium, 30-ligne.....do.....	2.25	2.25
Small, 25-ligne.....do.....	1.40	1.40
Button, bronze, coat:		
Large, 30-ligne.....do.....		2.25
Small, 25-ligne.....do.....		1.40
Button, trouser, anchor:		
Large.....do.....	.3221	.2995
Small.....do.....	2.85	.2924
Button, white bone, A:		
27-ligne.....do.....	.125	.14
22-ligne.....do.....	.115	.125
Button, brass:		
Suspender.....do.....	.056	.0624
Fly.....do.....	.0515	.054
Button, shirt, olive-drab.....do.....	.28875	.31
Button rings.....do.....	.0513	.05
Trouser buckles.....do.....	.78	.78
Sewing silk (750-yard spools).....do.....	45.70	49.16
Buttonhole twist (10-yard quills).....do.....	1.90	1.95
Basting cotton (200 yard spools).....do.....	1.59	1.99
Trouser clasps, brass.....do.....	.31	.30
Linen thread:		
No. 35.....per pound.....	1.14	1.14
1-ounce, No. 70.....per gross.....	19.35	19.35
Sewing cotton:		
Nos. 20 and 40, 200-yard spools.....do.....	3.90	4.54
No. 60, 200-yard spools.....do.....		4.54
Woolen blankets.....each.....	3.97	4.28
Rubber boots.....per pair.....	2.28	2.19
Rubber coats.....each.....	3.35	3.45
Rubber ponchos.....do.....	2.79	
Rubber hats.....do.....	.264	.28
Shoulder knots.....per pair.....		2.04
Undress caps.....each.....	.87	.835
Undress caps for band.....do.....	.98	.96
Full dress caps.....do.....	1.42	
Full dress caps for band.....do.....	1.75	
Muskrat caps.....do.....	1.43	1.88
White cap covers.....do.....	.1187	.124
Gunnery sergeant's field chevrons.....per set.....	.93	.89
Sergeant's field chevrons.....do.....	.20	.18
Corporal's field chevrons.....do.....	.1598	.14
Sergeant-major's field chevrons.....do.....	.35	
Quartermaster-sergeant's field chevrons.....do.....	.32	
First sergeant's field chevrons.....do.....	.2898	
Cap ornaments.....each.....	.074	.08125
Leggins.....per pair.....	.389	.4349
Woolen socks.....per dozen pairs.....	4.11	
Cotton socks:		
Heavy weight.....do.....	1.09	1.12
Light weight.....do.....	.98	
Woolen gloves.....do.....	7.46	5.50
White cotton gloves.....do.....	1.41	1.65
Field hats.....each.....	1.40	1.59
Drawers, heavy-weight.....do.....	1.45	1.65
Undershirts, heavy-weight.....do.....	1.45	1.65
Drawers, light-weight.....do.....	.90	1.05
Undershirts, light-weight.....do.....	.90	1.05

Comparative statement showing unit price of material used in clothing enlisted men of the Marine Corps—Continued.

Material.	Fiscal year 1906.	Fiscal year 1907.
White helmets.....	each.. \$1.48	\$1.48
Brass spikes for helmets.....	do... .18	.18
Brass bases with stars for helmets.....	do... .18	.18
Russet calf-skin shoes.....	per pair.. 2.14	2.18
Black calf-skin shoes.....	do... 2.14	2.865
Arctic shoes.....	do... 1.92	2.46
Suspenders.....	do... .1617	.1644
Trouser belts.....	each... .84	.49
Waist belts.....	do... .85	.85
Cotton tape.....	per yard.....	.0046
White cloth.....	do... 3.00	.....
White lining jeans (bleached).....	do... .0659	.....
Black mohair tubular braid.....	do... (.73)	.....
Yellow worsted lace.....	do... .25	.....
Lyres.....	per pair.. .35	.....
Nainsook.....	per yard.. .0853	.1598

The CHAIRMAN. The next item is "Fuel, Marine Corps," and you are asking for \$90,000 instead of \$70,000. There is an increase of \$20,000.

Colonel DENNY. The increase there is based chiefly on the increase in the number of posts to be looked out for under this head. For example, the new barracks at New Orleans, at Norfolk, at the training station at San Francisco, and at Olongapo will be completed before the end of this fiscal year. So that during the next fiscal year an additional supply of fuel for those four posts will be necessary. In addition to that, part of the station at New London has been transferred to the Marine Corps, and under the authorization of Congress we are improving the buildings there for enlisted men, and we are asking in our estimate for the next year further appropriation from Congress for additional buildings. So that station, added to the other four stations, will require for maintenance for the enlisted men \$20,000 under the head of "Fuel."

The CHAIRMAN. What are you doing at New London, training the men and officers?

Colonel DENNY. Yes, sir.

General ELLIOTT. We are putting some student officers there. The student officers in Annapolis are living in establishments divided off by a canvas, from six to ten in a room—no privacy—living more like enlisted men than officers.

The CHAIRMAN. How many men have you there now?

Colonel DENNY. The building is not done, and will not be done until early spring, so we are not keeping any force there at present.

In relation to this increase of \$20,000 for fuel, \$10,000 is proposed for the additional men we are asking for.

The CHAIRMAN. Under the item "Military stores, Marine Corps," you increase the pay of the chief armorer from \$3 to \$4.50 per day?

Colonel DENNY. Yes, sir; we had that subject before you last year. Those who are affected by this proposed increase are the men who have served with us a long while and are most efficient and faithful, and they are getting pay now that is much below the pay they would get outside, and we believe that they ought to have at least \$1 increase in pay per day. They are hard-working men; efficient men and faithful men.

The CHAIRMAN. Then there is an increase in military stores of \$75,000. Why is that necessary? How much of that amount is for the increase in the number of men?

Colonel DENNY. About \$50,000 is for additional arms, ammunition, and various supplies purchased under the head of "Military stores." With the balance it is proposed, among other things, based upon practical experience, to purchase strips of land for target ranges. We now rent target ranges, and the leases in such cases are often broken by the owner of the property wanting the land for sale.

The CHAIRMAN. Do you own any rifle ranges now?

Colonel DENNY. None, except at the regular naval stations—for instance, at Philadelphia and Olongapo—and wherever the station is of sufficient size to permit firing to be carried on with safety; but we lease ranges at New York and in the East, and also in the South.

The CHAIRMAN. How much do you have to pay a year?

Colonel DENNY. It depends very much on its nearness to cities. In the most remote places, such as at Norfolk, where it is several hours from the station—the men have to go down in boats—the rent is comparatively low; less than \$500 a year. If it is near a city the rent is very much higher, of course. It is more a question of tenure. There is no stability about it now. We may go to the extent of improving a range, putting targets there and some place for the markers and other fittings for the comfort of the men, and the next year the owner may decide to sell or refuse to renew the lease and we have lost all those improvements.

The CHAIRMAN. Have you any place in mind that you would like to buy?

Colonel DENNY. Yes, sir. There are a number of excellent places below Norfolk, down on the river, some inland. This is true at practically all our stations.

The CHAIRMAN. How many ranges could you buy for this \$25,000?

Colonel DENNY. The idea would be to buy two a year, and in the course of six or eight years we would have enough. The idea is not to ask Congress for much each year, but gradually to get them.

Mr. KITCHIN. Can you tell us about how much the renting of these rifle ranges cost last year?

Colonel DENNY. Not offhand; but I can give you a statement showing exactly what it did cost.

The CHAIRMAN. And showing where they were located?

Colonel DENNY. Yes, sir.

General ELLIOTT. The law passed Congress last year allowing a marksman \$1 more a month; if he becomes a sharpshooter he gets \$2 more a month, and if he becomes an expert rifleman—and only a very few reach that stage, he gets \$3 a month. These men are urging that they be allowed an opportunity to go to the rifle range. As it is now, there are a great many of them that we can not send to the rifle range—the real range. We have little auxiliary ranges built in sheds, where we shoot the reduced charge and train the men in that way, and while it is a great assistance and the men do tolerably well on the ranges, they have no opportunity to get this extra dollar. The men want these ranges themselves in order that they may be put on the same footing with the soldiers in the Army, so that they can get this pay. As soon as they can qualify they get the money.

Colonel DENNY. As I told you, the proposition is to buy a few ranges, one or two each year. Another reason for this increase of \$25,000 is the increased field service. Our marines are being ordered all the time. For instance, there is a floating battalion maintained, by the direction of the Secretary of the Navy, especially in the West Indies, and also a regiment in Cuba—over a thousand men. The number of men in the Philippines has increased from about 900 to 1,200 men, and the additional cost of supplying ammunition and field equipment for these men, serving as I have said, enters into this increase, and the cost of the rifle ranges plus the cost of these military supplies required by these men so serving makes just about \$25,000. I omitted to state that the command at Peking has been increased, and therefore the quantity of military supplies kept at that remote station is much greater than it used to be.

Mr. KITCHIN. I wish you would put in your testimony a statement of the condition at Peking—how many men you have there.

General ELLIOTT. One hundred and twenty-five men and five officers. We have to ship everything to them by mail steamer.

The CHAIRMAN. They are right at the legation?

General ELLIOTT. Yes, sir; in the barracks there.

Mr. KITCHIN. You supply them from here?

General ELLIOTT. Yes, sir. We do not know when they will call for an increase; they might do so at any time.

The CHAIRMAN. For "Transportation and recruiting" there is an increase of \$80,000.

Colonel DENNY. Fifty thousand dollars of which is to provide transportation and recruiting for the proposed enlargement of the corps as previously referred to. The balance of the proposed increase, that is, \$30,000, is asked for because of very serious trouble and material increase in the expense of recruiting. We have recruiting officers now practically all over the country, in the East, Middle West, Far West, Northwest, and South; in Mississippi, Tennessee, North Carolina, Arkansas; in the West, Iowa, and in the Northwest, the Dakotas.

General ELLIOTT. And in St. Louis, Chicago, and Detroit.

Colonel DENNY. Practically all over the country, and that is made necessary because of the great trouble we have in getting recruits. The prosperity of the country makes it very difficult to get men. They seem to be able to get work in all kinds of labor centers and on farms.

The CHAIRMAN. You send out recruiting parties?

Colonel DENNY. Yes, sir. We send out traveling parties that go from place to place and we have permanently established offices at desirable places.

General ELLIOTT. St. Louis, Chicago, and St. Paul.

Mr. KITCHIN. How many recruits did you have during the last year?

General ELLIOTT. We had double discharges last year. We recruited nearly 5,000 men.

Mr. KITCHIN. How many of them were new men? I suppose many were reenlistments.

General ELLIOTT. We had 46 per cent reenlistments. No other corps in the service, Army or Navy, has as many reenlistments as we

have. Our discharges read "Bad," "Good," "Very good," and "Excellent." We do not allow a man to reenlist unless he has a "Good," "Very good," or "Excellent" discharge. Last year 46 per cent of those men receiving discharges reenlisted. In time—in a few years—that is going to give us a better corps and stop desertion. Desertion is the most expensive thing we have. Every time a man deserts we lose \$120.

Mr. KITCHIN. So you had about 5,000 new enlistments?

General ELLIOTT. Yes, sir; but we had double discharges.

Mr. KITCHIN. What percentage of desertions did you have last year?

General ELLIOTT. It will run up to 13 or 14 per cent—that is, the new men. A great many of them become dissatisfied with the service and break their oaths and desert, and the trouble is that it is often condoned at home. People know that a man has deserted, and they do not point their finger at him and say, "You are a deserter," but condone it entirely. That is the trouble. If we could educate our people so that when a man had taken an oath and broken it the people at home would say, "You are a deserter," we would have very little desertion.

Mr. KITCHIN. Is it not a fact that frequently they justify it, not in our minds, but to themselves, by saying that there was some misunderstanding or misrepresentation at the time of the enlistment?

General ELLIOTT. They say so, but I do not believe it.

The CHAIRMAN. At what age do you enlist?

General ELLIOTT. We could enlist, under the law, at 18 years of age, but I will not allow them to take a man under any circumstances under 21 years of age.

The CHAIRMAN. Do you make him furnish evidence that he is 21 years of age?

General ELLIOTT. No, sir. I have written a letter to all the officers saying that if they do not believe a man's statement and believe him to be under 21 years of age, that then they should make him furnish testimony, either by some one who looks like a reliable person or by letter that he is 21 years of age, but in spite of all that we have a few boys whose parents write us that they are under 21 years of age.

The CHAIRMAN. Under the item "Repairs of barracks, Marine Corps," you are asking for an increase of \$12,500. What is the necessity for that increase?

Colonel DENNY. An increase of \$12,500 is recommended. Ten thousand dollars is necessary for the numerous repairs and for the improvements at stations of the corps such as Boston, Mass.; Newport, R. I.; San Juan, P. R.; Sitka, Alaska; Cavite, and some at Olongapo, where we have old buildings upon which we have not for years placed any material repairs or improvements, and these buildings are requiring attention in that direction, some of them to a very considerable extent, and while the expense in no case is very great, the number of stations multiplied by the small amount to be expended on each would amount to, we find from surveys and reports from officers, the sum recommended in the way of an increase.

The CHAIRMAN. The next item is:

Forage, Marine Corps: For forage in kind for horses of the Quartermaster's Department and the authorized number of officers' horses, seventeen thousand seven hundred dollars.

That is the same as last year?

Colonel DENNY. Yes, sir; we have not increased the number of horses?

The CHAIRMAN. How many horses have you?

Colonel DENNY. I would have to look up the report of public property.

General ELLIOTT. We have 12 in California. We have a lot of horses in Norfolk at the rifle range. The people drive to Williamsburg for supplies. All field officers, if they own horses, are entitled to forage to feed them. At Culebra and San Juan we have a few horses for hauling, and we have a few horses here and there.

Colonel DENNY. The Philippines is the greatest place, because there we are dependent upon land transportation, except going from Cavite to Manila.

The CHAIRMAN. You are entitled to a horse?

General ELLIOTT. Yes, sir.

The CHAIRMAN. That means major and up?

Colonel DENNY. Yes, sir; and all staff officers.

The CHAIRMAN. For "Hire of quarters, Marine Corps," you are asking an increase of about \$16,000?

Colonel DENNY. Fifteen thousand eight hundred dollars, \$10,800 of which is necessary to provide hire of quarters for increase in the line officers directed by the commandant of the corps, and for which estimates have been put in—15 captains and 15 first lieutenants.

The CHAIRMAN. We have been over that?

Colonel DENNY. Yes, sir.

Mr. KITCHIN. There is inserted in this paragraph as a new item the office of the brigade commander in the Philippine Islands. How is he provided for now?

Colonel DENNY. If you will just read that language, omitting the letters in italics, it shows that noncommissioned officers and enlisted men who may be detailed for extra duty at the places mentioned, the offices of the commandant, adjutant and inspector, paymaster and quartermaster, and the staff officers at Philadelphia and in San Francisco, for instance, men detailed on this duty are entitled to the hire of quarters—that is, commutation therefor—if on duty at those places, but if on duty in the Philippines in the office of the brigade commander or the staff officers there he can not get it.

Mr. KITCHIN. As the law is now he gets no commutation at all?

Colonel DENNY. That is the point. The men are on the same footing and should be entitled to the same allowance, and according to the rulings of the accounting officers of the Treasury the omission of the words "Philippine Islands" prevents them from getting it. It must be specifically provided for in the act.

Mr. KITCHIN. With this new provision all these enlisted men will be on the same footing?

Colonel DENNY. The enlisted men, the same as their comrades at other places.

Mr. KITCHIN. This does not provide quarters for officers?

Colonel DENNY. No, sir; just for the enlisted men.

The CHAIRMAN. The next item is—

Contingent, Marine Corps: For freight, tolls, cartage, advertising, etc., three hundred and thirty thousand eight hundred dollars.

There is an increase of \$105,000. What is the necessity for that?

Colonel DENNY. Twenty-five thousand dollars of that is intended for the furnishing and equipment and other preparation for occupancy by the enlisted men of the new barracks, which have been completed under the authority of Congress at Norfolk, New Orleans, San Francisco, and Olongapo in the Philippine Islands. These various barracks ought to be completed by the 1st of June next, and the custom for years has been to come to Congress shortly before the buildings are ready for use and ask for funds with which to buy the necessary furniture, bunks, beds, and provide for the water used and for the different things at the barracks, gas, electricity, brooms, rugs, and everything in the way of housekeeping. You remember I have several times referred to that appropriation as the one which relates to the domestic administration of the barracks and provides practically everything.

The CHAIRMAN. If you have all those things one year you do not need to buy them again?

Colonel DENNY. No, sir.

The CHAIRMAN. Could we not reduce the appropriation next year?

Colonel DENNY. This appropriation is for furnishing new buildings which you have authorized.

The CHAIRMAN. I notice that this appropriation increases every year.

Colonel DENNY. Yes, sir.

The CHAIRMAN. You do not increase one year and then go back to the old amount?

Colonel DENNY. We have never asked you for an increase for this particular purpose. We have asked for an increase because of an increase in the number of enlisted men, which means necessarily an increase in the household supplies. There has been a most important increase in the cost of those supplies.

Mr. KITCHIN. How much does that increase amount to?

Colonel DENNY. I went over several things in that statement, but I can give you a statement showing what the increase has been during the year.

Mr. KITCHIN. That leaves \$85,000 unaccounted for?

Colonel DENNY. That would be needed for the proposed increase in the enlisted force—2,012 men.

The CHAIRMAN. We will now take up the items under "Public works," on page 116 of the bill. Last year you had \$106,000, and this year you are asking for \$884,000?

Colonel DENNY. Partly upon the suggestion of this committee last year when we appeared before it that it was not an opportune time then to provide additional public buildings and to submit the estimates to the committee this year and they would probably be favorably considered.

General ELLIOTT. Mr. Chairman, speaking of it as a whole, I can replace every public building, every roof that covers a marine, for \$1,500,000 now, and we have been living for a good many years. We have begged and lived in other people's quarters, army quarters and navy quarters. We have bunked here and there, and you have seen yourself how we are bunked in the Philippines. Upon my word, our men are hardly decently housed. In Guantanamo they are living in a shack constructed of empty 8 and 12 inch shell boxes, which

they have built themselves, and they are rained on and leaked on, and everything else.

The CHAIRMAN. The next item is, "Addition to officers' quarters, marine barracks, navy-yard, Portsmouth, New Hampshire, twelve thousand dollars." How many officers' quarters have you there at the present time?

Colonel DENNY. Two.

The CHAIRMAN. How many men have you there?

Colonel DENNY. We have three officers.

General ELLIOTT. We have three officers and five are required. There are 86 men at the post and there should be 150 men there.

The CHAIRMAN. How many quarters will this \$12,000 give you, one house or two houses?

Colonel DENNY. The idea was to build an addition to the present junior officers' building, which is three stories high, and let each floor consist of a little apartment of three rooms, parlor, dining room, bedroom and bath. That would provide accommodations for three additional young officers.

The CHAIRMAN. The next item is, "Improving parade ground, marine barracks, navy-yard, Boston, Massachusetts, five thousand dollars." Is that right in the navy-yard?

Colonel DENNY. Yes, sir; right in front of the barracks. The parade ground is gravel, and it is mud in winter and dust in summer. It is very bad. It is bad for the health of the command, on account of the dust, the medical officers there have reported. It is bad for the storeroom in which the clothing is kept, and it is most uncomfortable to both officers and the men.

The CHAIRMAN. How would you improve it?

Colonel DENNY. I suppose the best thing would be to put an asphalt or concrete covering over the ground. It is very small and it appears from the estimate we have that that can be done with this sum of money.

The CHAIRMAN. How large is it; is it an acre?

Colonel DENNY. No, sir. I should think it was 270 by 175 feet.

General ELLIOTT. It is not over 150 by 270 feet.

The CHAIRMAN. The next item is—

For construction of marine barracks and officers' quarters, naval station, New London, Connecticut, to cost one hundred thousand dollars, one hundred thousand dollars.

General ELLIOTT. We want to build a school there. I would like to send all the recruits there. The land was allotted to us by the Secretary. From April to November we would put the recruits in camps and buildings instead of putting them in navy-yards or to have them interfere with the other duties. It would be somewhat better to hold them there and drill them in a body and then to distribute them afterwards. Besides I want a building there for the young student officers.

The CHAIRMAN. You have one or two buildings there now?

General ELLIOTT. Yes, sir.

Colonel DENNY. We are adding an additional story to a one-story building now there.

The CHAIRMAN. Is it a brick building?

Colonel DENNY. Yes, sir; we are putting a second story on it. That will accommodate between 60 and 75 men.

The CHAIRMAN. How much of this \$100,000 would go for the barracks and how much for the officers' quarters?

Colonel DENNY. General Elliott's idea is, as I understand it, to have quarters for the student officers in the barracks for the men. In other words, certain portions of the second floor would be partitioned off in small rooms about 12 feet square; not separate buildings. There ought to be, I suppose, one cottage for two quarters in addition to the one frame cottage that is there now. That is for the commanding officer and the instructors. We thought we could build a double house and maybe in that one house comfortably accommodate as many as four officers.

The CHAIRMAN. How many men do you propose keeping there?

General ELLIOTT. About 500 or 600 recruits. Use it as a drill station and then distribute them. It keeps them out of the big cities and keeps them away from New York and Boston.

Mr. KITCHIN. What buildings have you there now?

General ELLIOTT. An abandoned building built by the Navy. It is 182 feet long and 40 feet wide; a single-story building. We are going to put a second story to it, raise the roof, and make that into barracks of small rooms for student officers. There is one house which is given to the commanding officer, and I thought we would want about two or three double cottages, small, and of frame construction, for the instructors.

The CHAIRMAN. There is another old building there—

Colonel DENNY. The roof has fallen in.

The CHAIRMAN. Where they used to store boats.

Colonel DENNY. The Navy has that; they did not transfer it.

The CHAIRMAN. The next item is—

For construction of marine barracks and officers' quarters, navy-yard, League Island, Pennsylvania, to cost one hundred and twenty-five thousand dollars.

What are the present accommodations?

Colonel DENNY. We have one barracks which will accommodate about 200 men.

The CHAIRMAN. How much did that cost?

Colonel DENNY. Exactly \$96,000. The appropriation was \$100,000. That was about six years ago, when the cost of labor and material was about 30 per cent less than now.

The CHAIRMAN. How many men have you at League Island?

Colonel DENNY. From 200 to 220 sometimes.

General ELLIOTT. Yesterday at League Island we had 258 men.

The CHAIRMAN. Why do you need so many men at League Island?

General ELLIOTT. We ship them from there. We draw on League Island for men for sea. Of course our posts vary. If we need men at one post we take them from where we have the greatest number. Before the fleet goes south all vacancies in the fleet will be filled up from League Island and New York. It is a pretty large navy-yard.

Colonel DENNY. It is one of the principal depots of the Marine Corps, where recruits from the central section of Pennsylvania and Delaware and the West—Illinois, Ohio, and other places—go for training and discipline. They sometimes have as many as 350 men when recruiting is active, and that number of men is apt to be greatly discomforted if you have them housed in that building, and it is the only building in which they can be quartered. It is a place where we

have a great deal of ground, and in that respect the best we have, with the possible exception of Norfolk, where the ground we have is even larger.

General ELLIOTT. But that ground will need a lot of work.

The CHAIRMAN. It is healthy at League Island?

Colonel DENNY. Yes, sir. It is near our depot of supplies, and when ships are fitted out the men can be promptly fitted out from the depot, and the cost of transportation is very much less and they can get quickly and economically whatever they require.

The CHAIRMAN. The next item is:

For construction of amusement room for enlisted men, marine barracks, navy-yard, League Island, Pennsylvania, fifteen thousand dollars.

Colonel DENNY. That, Mr. Chairman, we think is highly important to the comfort and contentment of the enlisted men at that station. That station is remote from Philadelphia, 4 or 5 miles, and the idea is to provide a building there with certain features which will attract the men and keep them in garrison where they can amuse and interest themselves rather than to go uptown at considerable expense to themselves and at more or less danger to themselves in the way of getting into trouble, owing to temptations which are thrown in their path in the city.

Mr. KITCHIN. In regard to the quartermaster's depot at Philadelphia, how far is this depot from the marine barracks?

Colonel DENNY. About six miles in a straight line up Broad street.

Mr. KITCHIN. Is that depot the general depot for the entire corps?

Colonel DENNY. Yes, sir; except the Philippines.

General ELLIOTT. They make all the clothing there.

Mr. KITCHIN. You want \$200,000 for additional ground and for the erection of a new building adjoining that depot?

Colonel DENNY. Yes, sir. The present depot, which was completed three years ago under an appropriation from Congress, has been found to be very much too small to hold all of the supplies that we have to buy and to issue. At present we are renting a small building just beyond there—not fireproof; formerly a cheap brick store—and the quartermaster on duty at Philadelphia has reported that it is not secure, and in case of fire would probably be wiped out, which would be most embarrassing, because we would not have an appropriation sufficient to replace supplies so lost. We would have to come to Congress and get an appropriation, and Congress might not be in session at the time, and the result would be very grave. I do not know what we would do. Without supplies and money we would be helpless.

Mr. KITCHIN. What did the building we have there now cost?

Colonel DENNY. It cost \$150,000, which was specifically provided by Congress.

Mr. KITCHIN. The land and building?

Colonel DENNY. Yes, sir; and the language was: "The sum of \$150,000 shall not be exceeded for this purpose."

Mr. KITCHIN. How much did the land cost?

Colonel DENNY. The land cost \$50,000 and the building \$100,000.

The CHAIRMAN. How much land do you want to buy there?

Colonel DENNY. It is 163 feet long and 83 feet wide. It has been offered by the owner at a cost of \$53,000, which disinterested real estate experts and owners in that section have told us was a fair price.

The CHAIRMAN. What do you pay in rent for the additional store at the present time?

Colonel DENNY. I think it is \$4,000 a year.

The CHAIRMAN. What is the value of the goods stored there on an average?

Colonel DENNY. I would have to refer to the property returns. I should think safely \$100,000, probably \$150,000.

The CHAIRMAN. Clothing?

Colonel DENNY. Yes, sir. At present, Mr. Chairman, it is really a very serious embarrassment to us. The depot is piled from the floor to the ceiling on every floor, with little gangways 2 feet wide.

Mr. KITCHIN. What would be the disadvantage of having that depot down on the League Island grounds where we have so much land?

Colonel DENNY. It would involve a material increase in the cost of labor, because labor would have to come there and get the different articles for manufacture, the manufacture of coats, trousers, overcoats, and the general articles of uniform. The practice is for operatives to come in daily to the chief cutters and get the material cut by the cutters and take them out and make them. That would involve going to the navy-yard and coming back, which would mean car fare and the loss of time, which we have not now under this present system. The employment of these operatives is the cheapest in the United States.

Mr. KITCHIN. Suppose we bought the additional land and put a building there; would it not be just a matter of a few years when we would again need more room, and would it not be very important to locate that building somewhere, if it can be done, where we have plenty of land to increase the buildings as the needs of the service increase?

Colonel DENNY. Well, in answer to that, the proposition here contemplates the erection of a building five stories high, with walls of such thickness that if the requirements do increase—that is really a matter for Congress to decide—we can put additional stories on this building up to ten, which would double the capacity of the building. In our most enthusiastic dreams we have not gone beyond that.

Mr. KITCHIN. We have \$150,000 invested there now, and it is proposed to spend \$200,000 more. The property we have there could probably be sold for \$100,000, if it is well located.

Colonel DENNY. I should think that the construction of that building on that site has increased the value of the site, and the building itself, being a very desirable storehouse, I think it is worth \$200,000.

Mr. KITCHIN. The question in my mind was whether it would not be better to get a better location with more land, since it is as certain to grow as any department of this Government, and it seems to me you ought to look out for the future.

Colonel DENNY. If you should locate the manufacturing plant of the Marine Corps at League Island it would be remote from the city, remote from the operatives, remote from the place where we buy supplies, and it would also place the depot in the naval jurisdiction

instead of having it under the Marine Corps jurisdiction as now. It would not be as economical, the work would not be done as expeditiously, and in that connection I want to say that immediately across the street from us is the Pennsylvania freight station, so that in case of requests by letter or telegram, within an hour after their receipt, in an emergency, the material is shipped.

That is the life of the Marine Corps. The unexpected always happens. That is, we get twenty-four hours or thirty-six hours or forty-eight hours' notice to ship a squad or may be a brigade, and with this nearness of the depot to the Pennsylvania freight station, across the street, we can accomplish those things as we have. Our record in that line is remarkable as you, perhaps, know. We can get a brigade off in twenty-four hours if the ship is ready to take us. That is due to the fact that we can get the supplies across the road and in the freight cars and ship them to any place necessary.

General ELLIOTT. There is another thing. Suppose it is inside a navy-yard and your employees are subject to whatever orders the commandant may see fit to give, about what hours they can enter and leave, and whether they shall be searched by the corporal or sergeant of the guard.

Mr. KITCHIN. I can see reasons for its not going into the navy-yard, but it seems to me it could be put a little farther from the business center of the city.

Colonel DENNY. This is remote from the business center. It is on South Broad street on the way to the navy-yard. The only business near it is the manufacturing establishment of Wanamaker, directly across the street. He has a great warehouse where he manufactures a great many things, but it is the only other branch of business in that section of Philadelphia.

Mr. KITCHIN. What is the size of the present lot there?

Colonel DENNY. It is about 80 by 100 feet.

Mr. KITCHIN. This piece of land that you propose to buy will really be larger?

Colonel DENNY. It is 163 feet long by the same width. In that connection, all this ground would not be built upon. It would not be practicable. We must have a yard and some sheds for horses, wagons, and carts. The idea was to have an arch between the two buildings and a place in the rear for the animals and vehicles to go.

The CHAIRMAN. How many stories is the present building?

Colonel DENNY. Five stories.

The CHAIRMAN. Is the construction strong enough to build additional stories?

Colonel DENNY. The walls for the first two stories are 2 feet thick and 18 inches thick above. It is of fireproof construction throughout. There is no plaster on the walls, plain brick walls, with concrete floors, supported by columns of concrete all the way up.

The CHAIRMAN. Could you not add on to the present building?

Colonel DENNY. We could add on to the roof. That, however, was calculated by the architects of the present building and that would not give us the space we actually require.

The CHAIRMAN. The next item is "Toward completion of marine barracks and officers' quarters. Washington, District of Columbia, fifty thousand dollars." How much have we already appropriated?

Colonel DENNY. Two hundred and seventy-five thousand dollars.

The CHAIRMAN. And this \$50,000 would make \$325,000?

Colonel DENNY. That completes the scheme. When we came to you about five years ago the idea was, if you remember the matter, that we should annually come to Congress for certain appropriations to continue the work and not ask for a big sum of money any one year.

The CHAIRMAN. How many officers' quarters have been completed?

Colonel DENNY. None; only buildings for enlisted men have been authorized.

The CHAIRMAN. How many will be completed under this appropriation?

Colonel DENNY. One for the commanding officer and three small apartments for three other officers, a total of four.

The CHAIRMAN. The next item is "For roads, walks, grading, etc., Marine Corps, reservation, navy-yard, Norfolk, Virginia, ten thousand dollars." You have a reservation there, have you?

Colonel DENNY. Yes, sir; the largest in the Marine Corps, about 31 acres.

The CHAIRMAN. Will it take \$10,000 to do this work?

Colonel DENNY. Yes, sir; every cent of it. I am afraid more than that. That is based upon estimates submitted to us by the commanding officer and the civil engineer of the station. There are no roads or walks whatever there. It was an old farm, if you remember, and the furrows are there to-day as they were when the Government bought the property.

The CHAIRMAN. That is down below the navy-yard?

Colonel DENNY. Yes, sir.

The CHAIRMAN. The new tract?

Colonel DENNY. Yes, sir.

The CHAIRMAN. The next is, "For construction of marine barracks and officers' quarters, Charleston, S. C., \$50,000." Have you none there now?

Colonel DENNY. We have a little frame shanty, in which one officer lives, and we have a frame building that we put up three years ago, in which the men live. Both buildings are worth, I should say, about \$6,000. They were when they were built. They are small and frightfully hot in summer. They are simply weatherboards with a shingle roof.

The CHAIRMAN. Have you many marines there now?

Colonel DENNY. No; I think about 50.

General ELLIOTT. We stripped that post for Cuba. There are 34 marines there now.

The CHAIRMAN. The next item is, "For construction of officers' quarters, Navy-Yard, Pensacola, Florida, \$15,000." What is the condition there?

Colonel DENNY. The only quarters we had there were burned. They were frame and were a complete loss.

The CHAIRMAN. When were they burned?

Colonel DENNY. Several years ago. We have not been certain as to whether that would be a permanent station until very recently, and we are occupying a building that belongs to the construction department of the Navy, and in one end of that on the second floor is where one officer lives. The other officer, or other two officers who

ought to be there have no quarters at all, and I think at present they are living at Pensacola, distant about one hour from the yard.

The CHAIRMAN. What is the situation down at Guantnamo?

Colonel DENNY. There is a little building there about 20 feet square, which is made of shell boxes and clothing boxes nailed together by the men themselves. It is absolutely disgraceful, and there is no comfort or convenience whatever. We have several reports from officers who inspected it, and they reported in about the language I have used.

The CHAIRMAN. How many men have you there?

General ELLIOTT. At the present time only about 25, but they have been doing light-house duty and signal duty and all that. But, Mr. Chairman, they have gone there to stay. That land belongs to the Navy.

Mr. KITCHIN. Why do you use the words "temporary marine barracks?"

General ELLIOTT. I think that is going to be the great station for defending the Panama Canal. It is one of the best harbors in the world and will be defended and held.

Mr. KITCHIN. Then ought we not to build a permanent barracks there?

General ELLIOTT. No, sir; because I do not think the time has come yet. This little house will never be abandoned. We will build it right on the key where they built the navy-yard.

Mr. KITCHIN. Do you propose building a wooden structure?

General ELLIOTT. Yes, sir; with a concrete foundation to keep the ants from eating it up.

The CHAIRMAN. The next item is, "For construction of an addition to the marine barracks, navy-yard, Bremerton, Wash., \$12,000." What is the condition there at the present time?

Colonel DENNY. The barracks are too small to accommodate the command, and when the Commandant of the Corps and I inspected that station about two years ago we found about 40 or 50 men living in tents. That station is growing in importance, and the commandant of the station has repeatedly asked for more men. There are some enlistments out there and some of the enlistments made in St. Paul, Detroit, and the Northwest generally are sent there. The men are put to great discomfort at the present time, and the proposition here was to add a wing or a story to the present structure and increase the comfort of the men. It is a remote station, far from Seattle. One gets there by water. More physical comforts would greatly add to the men's contentment.

The CHAIRMAN. The next paragraph simply says "Toward completion of officers' quarters, marine barracks, Bremerton, Wash., \$10,000." Are you constructing the barracks?

Colonel DENNY. No, sir.

The CHAIRMAN. How much have you there?

Colonel DENNY. One house. The idea was to build another small house and complete the scheme so as to have three officers at that post, the commanding officer and two duty officers.

The CHAIRMAN. The next item is, "For construction of marine barracks and officers' quarters, navy-yard, Mare Island, California, to cost \$180,000." What is the condition there?

Colonel DENNY. It is the same matter that we reported to the committee last year, that the present barracks was seriously injured by the earthquake, and two boards of survey who have reported on the subject tell us that it is unsafe and should be abandoned. The commandant of the station, Admiral McCalla, who personally inspected the barracks, accompanied by the civil engineer, an expert in construction work, made an indorsement on one of the reports to the effect that the building was unfit for habitation and should be abandoned for all purposes—should be torn down, as a matter of fact.

The CHAIRMAN. How much of this appropriation will go to barracks and how much to officers' quarters?

Colonel DENNY. The idea was to build two officers' quarters and to put all the rest into the barracks.

Mr. KITCHIN. What is it estimated the quarters will cost?

Colonel DENNY. It is a difficult thing to answer that question, although our estimate was based upon a report from one of the leading architects of San Francisco. The reason why it is difficult is the very high cost of labor in that market. It is on an ascending scale all the time. For instance, plasterers were getting \$8 a day and shortly afterwards getting \$9 and now we expect it to go up to \$10, and in this estimate which we submit for the barracks especially, which is the main thing out there, more than the officers' quarters, we have considered the fact that the cost of material and labor is very high and it will be for many years to come, I dare say, with the great quantity of construction work to be done there.

General ELLIOTT. The idea was to build with hollow concrete blocks, it being cheaper than any other way we could build, and unless labor stopped us we could put some of our men to help mixing the concrete. They could lend a hand.

Mr. KITCHIN. Under the best estimate you have would these officers' quarters cost \$20,000 apiece?

Colonel DENNY. No, \$24,000; \$12,000 each.

The CHAIRMAN. The next item is "For construction of temporary marine barracks and officers' quarters, improving parade grounds, etc., naval station, Cavite, Philippine Islands, \$75,000." Have you any there now?

Colonel DENNY. We have a building which the quartermaster constructed out of allotments made to him covering a period of three years, about \$6,000 a year, about \$18,000 to \$20,000. If you remember your visit there, Mr. Chairman, it is on the stone wall facing Manila, not very far from the old magazine. It is a frame building entirely. It is substantial in a way and will probably last for six or eight years if the ants do not go for the foundation; but that, if you remember, is a storehouse and administration building where the officers are located and where supplies are kept. We have had to give up several buildings within the navy-yard proper, they being required by the Navy; for instance, one machine shop, one storehouse for the paymaster's department, and the men that were there have gone to Olongapo, and some have been put in quarters which we have rented outside the reservation.

General ELLIOTT. The Surgeon-General came to see me and told me that he had inspected Olongapo and the men living in Cavite, and the sickness was 12 per cent, where at Olongapo it was only less than 4 per cent. He recommended that we do something in the way of

getting these men over to the point where he has his hospital. There are 6,000 people within a space of 600 by 400 yards crowded right up against us.

The CHAIRMAN. That, I think, concludes your estimates. Have you anything further that you desire to say to the committee?

General ELLIOTT. No, sir. I desire to say that we are called upon and will be called upon to do more than we have men to fill requirements.

The CHAIRMAN. We are very much obliged to you.

Thereupon the committee adjourned.

Statement showing stations of officers and enlisted men of the United States Marine Corps in detail.

STATIONS IN THE UNITED STATES.

	Officers.	Enlisted men.
Headquarters Marine Corps	11	64
Assistant quartermaster, Philadelphia, Pa.	2	28
Berkeley, Cal.	2	18
Annapolis, Md.	4	50
Boston, Mass.	6	217
Charleston, S. C.	1	51
Iona Island, N. Y.	0	12
Key West, Fla.	0	12
League Island, Pa.	6	258
Mare Island, Cal.	6	428
Narragansett Bay, Newport, R. I.	1	87
Naval Home, Philadelphia, Pa.	0	28
Navy-yard, Washington, D. C.	2	77
New Orleans, La.	0	18
New York, N. Y.	8	375
Norfolk, Va.	12	316
Pensacola, Fla.	2	59
Port Royal, S. C.	0	22
Portsmouth, N. H.	3	86
Puget Sound, Wash.	1	139
San Francisco, Cal.	1	68
Sitka, Alaska.	1	39
Washington, D. C.	5	345
Total.	74	2,782

RECRUITING SERVICE.

District of—		
Buffalo, N. Y.	1	12
Georgia	2	13
Illinois.	1	7
Iowa.	1	18
Maryland.	0	2
Massachusetts.	0	10
Michigan.	1	7
Minnesota.	1	21
Missouri.	1	6
New York.	1	12
Ohio.	1	11
Pennsylvania.	0	6
Total.	10	125

RECEIVING SHIPS.

U. S. R. S. Franklin.	1	49
U. S. R. S. Hancock.	1	90
U. S. R. S. Hartford.	0	18
U. S. R. S. Independence.	0	35
U. S. R. S. Lancaster.	0	45
U. S. R. S. Pensacola.	0	22
U. S. R. S. Philadelphia.	0	13
U. S. R. S. Southery.	1	81
U. S. R. S. Wabash.	1	26
Total.	4	379

*Statement showing stations of officers and enlisted men of the United States Marine Corps
in detail—Continued.*

FOREIGN SERVICE.

	Officers.	Enlisted men.
Culebra, Virgin Islands	2	84
Guam, Ladrone Islands	4	103
Guantanamo, Cuba	0	34
Honolulu, Hawaii	2	49
Isthmian Canal Zone, Panama	8	202
Midway Island, N. P.	1	21
Philippine Islands	35	1,196
San Juan, P. R.	4	101
Tutuila, Samoa	0	1
Peking, China	3	124
Yokohama Hospital, Japan	0	5
Cuba	39	967
Total	98	2,900

AT SEA.

U. S. S. Alabama	2	69
U. S. S. Baltimore	1	38
U. S. S. Boston	1	41
U. S. S. Buffalo	0	14
U. S. S. Charleston	2	56
U. S. S. Chattanooga	1	24
U. S. S. Chicago	1	43
U. S. S. Cincinnati	1	34
U. S. S. Colorado	2	59
U. S. S. California	1	48
U. S. S. Connecticut	2	60
U. S. S. Dolphin	0	10
U. S. S. Dubuque	0	12
U. S. S. Galveston	1	26
U. S. S. Helena	1	31
U. S. S. Illinois	1	54
U. S. S. Indiana	2	48
U. S. S. Iowa	2	65
U. S. S. Kearsarge	2	57
U. S. S. Kentucky	2	60
U. S. S. Louisiana	2	64
U. S. S. Maine	2	65
U. S. S. Maryland	2	60
U. S. S. Mayflower	0	10
U. S. S. Missouri	2	58
U. S. S. Mohican	0	23
U. S. S. New Jersey	2	44
U. S. S. Ohio	1	75
U. S. S. Paducah	0	11
U. S. S. Pennsylvania	2	69
U. S. S. Rainbow	1	47
U. S. S. Raleigh	0	31
U. S. S. Rhode Island	2	42
U. S. S. St. Louis	1	48
U. S. S. Tacoma	1	24
U. S. S. Tennessee	2	38
U. S. S. Virginia	2	57
U. S. S. Washington	1	59
U. S. S. West Virginia	2	73
U. S. S. Wilmington	1	29
U. S. S. Wolverine	0	24
U. S. S. Dixie	9	305
Total	60	2,086

UNDER ORDERS, ETC.

Under orders	15	63
Special duty	6	0
On leave (en route to United States)	1	0
On sick leave	2	0
In Army and Navy General Hospital, Fort Bayard, N. Mex.	2	0
Total	26	63

Statement showing stations of officers and enlisted men of the United States Marine Corps in detail—Continued.

RECAPITULATION.

Distribution.	Officers.	Enlisted men.
Stations in the United States	74	2, 782
Recruiting service	10	125
Receiving ships	4	879
Foreign service	98	2, 900
At sea	60	2, 086
Under orders, etc	26	63
Grand total	272	8, 336

UNITED STATES MARINE CORPS.

Rank.	Total number allowed by law.	Number on foreign duty ashore.	Number at sea.	Number on shore duty in United States.	Remarks.
Colonels	6	2	0	5	One additional in grade.
Lieutenant-colonels	6	2	0	4	
Majors	15	10	1	5	Do.
Captains	72	29	18	28	
First lieutenants	85	28	17	37	
Second lieutenants	72	40	18	10	

There are at present, according to the above figures, 33 per cent of the entire number of officers in the Corps ashore, and 67 per cent at sea or on foreign duty.

Attention is called to the impossibility of relieving from foreign duty and sea duty 67 per cent with 33 per cent.

MEMORANDUM.

The line of the Regular Army consists of—

	Men.
15 regiments of cavalry	13, 020
Artillery Corps	18, 166
30 regiments of infantry	25, 649
Signal Corps	1, 212
	58, 047

which gives the following proportions of officers to men of the line of the Army and the Marine Corps:

	Army.		Marine corps.	
	Officers.	Men.	Officers.	Men.
Lieutenant-general	1	58, 047	.....	.....
Major-generals	7	8, 292	.....	.....
Brigadier-generals	18	3, 226	1	8, 771
Colonels	64	907	6	1, 461
Lieutenant-colonels	67	866	6	1, 461
Majors	190	306	15	585
Captains	888	66	72	122
First lieutenants	888	66	85	108
Second lieutenants	870	67	72	122

	Staff.	
	Army.	Marine Corps.
Brigadier-generals.....	8	.....
Colonels.....	32	3
Lieutenant-colonels.....	45	3
Majors.....	113	6
Captains.....	137	9
First Lieutenants.....	265	.....

The Army has 1 staff officer for every 100 men.

The Marine Corps has 1 staff officer for every 418 men.

[No. 11.]

BUREAU OF CONSTRUCTION AND REPAIR—STATEMENT OF REAR-ADMIRAL WASHINGTON L. CAPPS, CHIEF CONSTRUCTOR.

COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C., December 17, 1906.

The CHAIRMAN. The first item under the Bureau of Construction and Repair is: "Construction and repair of vessels: For preservation and completion of vessels on the stocks and in ordinary," etc., and the estimate is \$7,900,000. Last year the appropriation was \$7,600,000. This year the Bureau is asking for an increase of \$300,000. Will you have any large unexpended balance this year?

Admiral CAPPS. Pardon me, sir. The \$7,600,000 was the amount of the original appropriation, which was increased by \$300,000 reappropriated from the unexpended balance of a previous year, so that the amount asked for this year is identical with the amount allowed last year.

The CHAIRMAN. That is by reason of the reappropriation?

Admiral CAPPS. Yes, sir.

The CHAIRMAN. Could we reduce this appropriation this year?

Admiral CAPPS. No, sir. The continuance of the actual rate of expenditure for the first five months of this fiscal year will leave practically no balance from our last year's appropriation of \$7,900,000. The amount of work on ships in commission is constantly increasing, with consequently increased demands upon this appropriation.

Mr. KITCHIN. It seems to me that last year we appropriated \$7,900,000, including the \$300,000 item we reappropriated.

Admiral CAPPS. Yes, sir; that is the fact.

The CHAIRMAN. Will you kindly furnish a statement showing the expenditures for these different items?

Admiral CAPPS. I can furnish a statement showing the expenditures under the various titles in the appropriation, just as I did last year. I have such a table prepared for the fiscal year ending June 30, and will append it to my remarks. (See Appendix No. 3.)

Mr. KITCHIN. Will that show the amount expended at each yard?

Admiral CAPPS. I have before me a table showing the amount expended at each navy-yard, and will append it to my statement. (See Appendix No. 2.)

The CHAIRMAN. Last year there was an amendment offered on the floor extending this proviso—

Provided, That no part of this sum shall be applied to the repairs of any wooden ship, when the estimated cost of such repairs, to be appraised by a competent board of naval officers, shall exceed ten percentum of the estimated cost.

to all ships, and I think at that time you submitted your views.

Admiral CAPPS. In my testimony of last year I explained how such a prohibition, with respect to the repair of iron and steel ships, would possibly fail in accomplishing good results. The prohibition with respect to wooden ships was made about twenty years ago, to prevent the practical rebuilding of wooden ships under the guise of repairs.

The general overhauling of a steel ship that has been in service for four or five years, with a view to bringing such a vessel up to date as regards armament, arrangement of magazines, supply of ammunition, installation of modern auxiliaries, and fittings, so far as practicable, in addition to the overhauling and repairs necessitated by her previous service, would involve an expenditure of from 15 to 30 per cent of the original cost, but when the vessel was so overhauled and brought up to date it would, as a fighting machine, be a better ship than it was in the beginning, on account of the changes in armament and additional fittings installed as a result of experience gained during the period which has elapsed since her original construction. Therefore, if the ship were condemned whenever the cost of repairs exceeded 10 per cent of the original cost of the vessel, you would not be able to modernize any of those ships.

The CHAIRMAN. The idea was not to condemn the ship, but to make the Bureau come to Congress for a specific appropriation in each case.

Admiral CAPPS. It is entirely possible to defer such extensive repairs until specific authorization has been obtained from Congress, but it would cause a possible delay of from twelve months to two years and would make it extremely difficult for the Navy Department to adjust in a satisfactory and economical manner the work to be undertaken at the various navy-yards.

Prior to undertaking a general overhauling at any navy-yard, a ship on a foreign station must first be sent home, subjected to a thorough survey, plans of alterations and improvements prepared, and estimates of cost of necessary work submitted. A complete survey, as prepared at a navy-yard, with plans and estimates, is then submitted to the Department for its action. Should it be necessary to await the specific action of Congress before work could be undertaken, it would be quite impracticable for the Department to assign work to the various navy-yards in such manner as would permit its most expeditious and economical performance, and it is highly probable that such action as Congress might desire to take would be based wholly upon the expert advice of the Department, as contained in the detailed reports of the board of survey. It should be noted in this connection that the detailed report of a general survey on a battle ship would contain probably between 150 and 200 items, these matters being gone into in considerable detail.

The CHAIRMAN. I wish you would just briefly state the method that you pursue before the order is issued by the Secretary of the Navy to begin the overhauling of a ship; how many different boards pass upon it, etc.

Admiral CAPPS. In the first place, a report is submitted by the commanding officer of the vessel showing the condition of the ship and the repairs which, in his judgment, based upon actual experience in service, are needed. This report is given brief preliminary criticism

by the bureau of the Navy Department concerned, and submitted to the Department with the recommendation that a general survey be ordered. The Department having approved the holding of a general survey on the vessel, the papers are then transmitted to the navy-yard at which the vessel is to be repaired, with instructions to the commandant to order a board of survey. This board of survey, organized in accordance with statute law, is composed (in the case of construction and repair surveys) of an officer designated by the Department (usually a captain or commander), the naval constructor or assistant naval constructor attached to the yard, and such master workmen as will have work to perform on the vessel. Plans are made showing the various proposed alterations, and detailed estimates of cost and time are prepared. The survey is then sent to the commandant and his action thereon noted; it is then forwarded to the Secretary of the Navy, who transmits it to the bureau concerned. It is then considered in detail by the bureau officers, having in view the experience obtained with other vessels of similar type and the improvements which have taken place on later vessels; the survey is then sent back to the Secretary of the Navy with the Bureau's comments and recommendations, and in the case of large surveys, the Department makes further reference to the board of construction, which is composed of all the chiefs of bureaus having cognizance of work on board ship. It is finally returned to the Department with the action of the board on construction noted, and receives the Department's final action. It thus appears that work in connection with the general overhauling of a vessel is given most careful attention by a large number of officials directly concerned with such work. It is not infrequent that surveys are returned to navy-yards for revision by the board of survey, with a view to decreasing the expenditure.

The CHAIRMAN. Has not the Secretary made a new order to the effect that the Assistant Secretary shall look over the vessel before there is any general overhauling?

Admiral CAPPS. The Assistant Secretary, as a matter of fact, does usually look over the vessel. Such inspection is a part of his general duties, but must, of course, be only of a general nature. No one man can critically consider in a few hours what more than half a dozen men have been working out for several weeks.

Mr. KITCHIN. Under that condition, could there be any delay in leaving this matter of repairing where the percentage of cost exceeds 10 per cent to Congress until after the Secretary of the Navy has made his final recommendation?

Admiral CAPPS. You mean to refer the report of the board, for instance, to Congress before going to the Secretary?

Mr. KITCHIN. No, sir. I mean after the Secretary has taken action, then refer it to Congress. It seems to me there never could be more delay than probably ten months, we will say, if Congress desired to act upon it.

Admiral CAPPS. In my judgment, the condition would seem to be this: If a vessel was about to return to the United States for a general overhauling and did not arrive in time to have a complete survey prepared before the adjournment of Congress, all work would have to be suspended and the vessel laid up in ordinary until the survey could be submitted to Congress, passed upon in committee, and approved in connection with the current naval appropriation bill. As

such bills do not ordinarily pass Congress before May or June in the long session, it is quite possible that it would be a year or a year and a half before repairs could actually be begun.

Mr. KITCHIN. If they got it ready by March and got it in before Congress adjourned, there would be no delay, probably not over two weeks, but if it was a thing that they could not get ready until March, it would have to go until December.

Admiral CAPPS. Unless we could regulate the movements of vessels and their being placed out of commission, with respect to the working conditions prevailing at navy-yards, it would be wholly impracticable to so arrange matters that there would be a delay of less than one year. In course of time the placing of vessels out of commission for general overhauling may be determined with greater certainty and may be adapted to the needs not only of the fleet, but of the repair stations. At the present time, however, the exigencies of the service are such as to make such ideal arrangements out of the question.

The CHAIRMAN. How many of the big ships have been overhauled?

Admiral CAPPS. The *Indiana* has recently been given a very thorough overhauling. The *Iowa* and *Kentucky* received quite an extensive overhauling several years ago, but this overhauling was not nearly so thorough as that on the *Indiana*. The *Brooklyn* and *New York* were also given quite extensive repairs before beginning their last cruise. The *Massachusetts* and *Oregon* are now in course of overhauling, and the *Wisconsin* is being given a general survey.

The CHAIRMAN. What was the cost of overhauling the *Indiana*?

Admiral CAPPS. Under this Bureau, about \$600,000.

The CHAIRMAN. I thought the *Massachusetts* was to be overhauled?

Admiral CAPPS. Yes, sir; some of the repairs are being held up pending further revision of the survey.

The CHAIRMAN. What other large ships have you in contemplation?

Admiral CAPPS. The *Wisconsin* is out of commission at Puget Sound to be generally overhauled. The *New York* is actually being overhauled at Boston, the *Massachusetts* at New York, and the *Oregon* at Puget Sound. The *Illinois* and the *Alabama*, sister ships of the *Wisconsin*, will probably be out of commission before the end of next year.

The CHAIRMAN. You can not tell exactly what this general overhauling is going to cost until you get to the end of it, but, as a general proposition, what will it amount to? What percentage of the ship?

Admiral CAPPS. In all departments?

The CHAIRMAN. Yes, sir.

Admiral CAPPS. If you use as a basis the total cost of the ship as a fighting machine, say \$6,000,000 for the *Indiana*, it would be in the neighborhood of 15 to 20 per cent.

The CHAIRMAN. In the case of the *New York*, for instance, that is a cruiser?

Admiral CAPPS. It will be a little higher because the cost of hull and machinery forms a much greater percentage of the total cost of a cruiser than do similar items in the case of a battle ship. The total cost of the *New York* was about \$4,500,000, as I recall it.

Mr. KITCHIN. What will the percentage for repairs amount to, 25 or 30 per cent?

Admiral CAPPS. In the unarmored cruisers it will be as high as 30 per cent. In the case of battle ships, in the neighborhood of 20 per cent.

Mr. LOUD. What was the cost of the repairs to the two Spanish boats at the Portsmouth yard, \$100,000?

Admiral CAPPS. About \$125,000 each.

The CHAIRMAN. How often would a ship need such an extensive overhauling as, for instance, the *Indiana* or the *New York*?

Admiral CAPPS. Probably not more than once, and certainly not more than twice in a lifetime. The *Indiana* had been in commission for ten years before being overhauled.

Mr. KITCHIN. What is a lifetime, twenty years?

Admiral CAPPS. About twenty years. That may be regarded as the lifetime, not of the hull and outfit of the vessel, but of the vessel's efficiency as a fighting machine under average conditions, and when opposed to vessels of the latest design.

The CHAIRMAN. She would still be, to a certain extent, a fighting machine?

Admiral CAPPS. She would still be a good fighting machine of her day, and would render good service when opposed to vessels of approximately the same age of hull and battery.

Mr. KITCHIN. When did the *Alabama* go into commission, if you recollect, about seven years ago?

Admiral CAPPS. The first commission was October 16, 1900, a little over six years ago.

The CHAIRMAN. Are you contemplating overhauling her?

Admiral CAPPS. As soon as she can be spared from the fleet.

Mr. KITCHIN. She needs repairing now?

Admiral CAPPS. Yes, sir; very much. As a rule, it is very undesirable to keep a vessel of that class in commission more than four or five years; that is, you would probably have a very much less bill for general overhauling and would keep the ship in a more efficient condition if the general overhauling is not unduly delayed.

The CHAIRMAN. Have you had a survey made of her?

Admiral CAPPS. No, sir; we do not do that until she is out of commission.

The CHAIRMAN. Where has she been?

Admiral CAPPS. In the fleet.

The CHAIRMAN. After this general overhauling, in your judgment, is the ship practically as good as new or better?

Admiral CAPPS. A ship of her class, after being generally overhauled, is a more efficient fighting machine than she was when new, because a great many of the changes directly increase the military efficiency, including, as they usually do, improved arrangements for the stowage and supply of ammunition, etc.

Mr. KITCHIN. The hull will last?

Admiral CAPPS. The hull will last indefinitely if properly cared for, and there is a very rigid system of inspection for naval vessels, which insures proper care. Portions like the inner bottom under the machinery, lower plates of coal-bunker bulkheads, etc., and fittings in general have to be renewed or repaired; also nearly all the

auxiliary machinery, including capstans and winches, steering gear, etc., have to be overhauled; but the outside hull is usually in excellent condition.

The CHAIRMAN. I wish you would put in the hearings your views on the question of submitting to Congress the estimates for general overhauling and also the wisdom of extending the 10 per cent provision to all ships. You did submit your views very fully last year.

Admiral CAPPS. Yes, sir. The principal objections that occur to me are the delay in undertaking the work and the inability of the Department to properly provide for a reasonable succession of work at navy-yards, in view of the uncertainty as to the amount of repairs which Congress might authorize or the date upon which such repairs can be undertaken. In any event it appears to me that it would be wholly impracticable for Congress or any of its committees to go into the details of the repairs to ships in so complete a manner as they are already gone into by officials of the Navy Department. Each general survey of a large vessel in the Bureau of Construction and Repair alone involves from 150 to 200 or more items of work, and it would appear that in the end the committee of Congress charged with such supervision would be compelled to rely upon such expert recommendation as it might receive from the Navy Department. This matter was gone into so thoroughly last year, as previously noted by the chairman, that I submit below quotations from last year's hearings, which give the views of the chief constructor in this matter:

The CHAIRMAN. Now, I want to go on with Admiral Capps a little bit on this question of limiting the cost. Admiral, do you think it would be wise to limit the cost of repairs on these vessels? Would it not tend toward the more careful consideration of the subject of overhauling ships?

Admiral CAPPS. I can not say it would tend to a more careful consideration, because I believe that is done very conscientiously now. It would absolutely prohibit, however, the extensive overhauling of certain vessels when the estimated cost of overhauling exceeded a certain amount. I am of the opinion, moreover, that it would really be shifting to Congress a responsibility for determining details which the Navy Department should shoulder. Should Congress decide to limit the cost of general overhauling of comparatively modern steel vessels to a definite percentage of the cost of a new vessel of like size and material, I sincerely trust that the percentage determined upon will not be so low as to compel the abandonment of a vessel which, by the expenditure of, say, 25 per cent of her original cost, will be a much more efficient fighting machine than was the same vessel when first built; for it must be borne in mind that a very large part of the cost of overhauling war ships is due to improvements resulting from developments in naval material since the vessel was originally built.

The CHAIRMAN. Take the ordinary repairs on ships. Will they amount to 10 per cent on the cost?

Admiral CAPPS. You mean per annum?

The CHAIRMAN. Yes.

Admiral CAPPS. Oh, not anywhere near it. For battle ships and armored cruisers the annual cost of repairs rarely exceed 3 per cent of their first cost, and is frequently below 1 per cent of the original cost of the vessel. In previous testimony, in reply to the various questions about limiting the cost of repairs, it was stated that material reductions were frequently made from those required by commanding officers. Certain instances of this character which have occurred during the past year will clearly illustrate this. For instance, on the *Alabama*, which has been in commission for five years, the commanding officer requested certain repairs and alterations, and the board of survey recommended an expenditure of over \$53,000, but only \$19,000 was approved by the Bureau—practically a third of the amount recommended by the board. In the case of the *Nevada*, in a similar manner, an expenditure of \$13,000 was recommended and urged, and repairs to the extent of only \$4,400 were approved by the Bureau.

On the *Florida*, a similar vessel, over \$12,000 was recommended by the board of survey to be expended, acting upon the commanding officer's request for repairs, and only \$6,000 was approved. On the *Missouri* over \$10,000 was recommended, and only \$5,000 was approved. On the *Kearsarge*, which had been continuously in commission for six years, \$67,000 was recommended as urgently needed for repairs and alterations, and less than \$40,000 was approved. On the *Columbia* \$11,000 was recommended by the board of survey to be expended in repairs, and only \$3,000 was approved by the Bureau. Some of the above charges represent the docking and minor repairs at semiannual overhauls, while the larger figures represent the more extensive annual repairs. The above instances are a few, taken from many, to show that these matters are carefully considered, and requests for repairs which, in the opinion of commanding officers, are urgent are often wholly disapproved in order that the appropriations under the cognizance of the Bureau may be expended where there is the most vital need for them.

It may also be noted that since January 1, 1906, items of work involving expenditures of nearly \$350,000, which have been urgently recommended by commanding officers, have after careful examination been disapproved as not being sufficiently urgently required to necessitate execution at that time. I am very much of the opinion that every reasonable care is now taken by the Department to limit the cost of repairs to the least amount practicable having due regard to the military exigencies of the service. It must be borne in mind, however, that improvements in military matériel are constantly taking place and that in order that the fleet may be kept in efficient condition repairs and alterations to an extent much greater than that prevailing in the mercantile marine must be promptly undertaken. The chief constructor desires, moreover, to invite special attention to the fact that although the number of large ships in commission is constantly increasing, the total appropriation asked for this year is less than the amount appropriated for the fiscal years ending 1903, 1904, and 1905, and is exactly the same as the appropriation for the fiscal year ending June 30, 1907. In view of all the circumstances the chief constructor does not believe it to be advisable to delay the undertaking of large repairs to vessels until same have been passed upon by Congress, unless the limiting percentage be made sufficiently high to cover all ordinary cases, and, as stated last year, this percentage should, in my judgment, be not less than 30 per cent.

Mr. LOUD. Can you tell us the cost of rebuilding the two ships out in the Philippines, at Cavite—one a monitor?

Admiral CAPPS. I can not recall the approximate amount. Such work is very expensive, however. I have recommended most definitely that general overhauling of this character be not done again. In fact, my annual report last year, and again this year, invited attention to the importance of doing all large overhauling work in navy-yards within the continental limits of the United States.

The CHAIRMAN. And keep our own labor employed?

Admiral CAPPS. Yes, sir. Nothing but urgent or incidental repairs due to wear and tear should be made on foreign stations, whenever practicable.

Mr. LOUD. Will it require 3,000 men to keep up incidental repairs?

Admiral CAPPS. I do not think they have that many there now.

Mr. LOUD. When we were there they had.

Admiral CAPPS. I should say, if the fleet continues to remain as at present, there could be a reduction of 20 per cent, and possibly more, but it has been my experience that the work performed per

diem by the class of men available at Cavite is very much less than the amount required and obtained from mechanics in our home yards.

Mr. LOUD. It looks like a pretty poor and expensive place to rebuild a ship.

Admiral CAPPS. It is undesirable for such extensive work. The Bureau is strongly on record in regard to that. One of the first things the present Chief of the Bureau did was to strongly recommend against it, and his predecessor made similar recommendation.

The CHAIRMAN. I wish you would put in the hearing a statement showing the ships that it is proposed to repair and overhaul during the coming year.

Admiral CAPPS. The following battle ships and large cruisers will be under general repair during the current fiscal year: *Massachusetts*, *Oregon*, *Wisconsin*, *New York*, and *San Francisco*. The ships to be repaired would include the whole fleet now in commission, since the fleet, as a rule, comes to a navy-yard twice each year—once for minor repairs and docking and the other time for such repairs and alterations as are absolutely necessary and can be performed within forty-five days. There will also be rather heavy repairs on all of the battle ships in connection with the installation of the latest system of "fire control," a preliminary outfit having already been installed on the *Virginia*.

The CHAIRMAN. The estimates with respect to the construction plants at the different navy-yards are the same as last year, all of them?

Admiral CAPPS. Yes, sir.

The CHAIRMAN. Except the construction plant at Charleston, where an appropriation of \$30,000 is asked?

Admiral CAPPS. Yes, sir. We have had no appropriation made for that yard, and the yard may possibly be ready for operation in the next eighteen months. It is therefore necessary to make provision for the machinery plant. Of course, \$30,000 is not more than half enough to equip one large shop, but we are already transferring machinery from Port Royal and we are getting some new tools from our current appropriation.

Mr. LOUD. Do you not think it would be better if the completion of the yard at Charleston was deferred as long as possible?

Admiral CAPPS. My recommendation would be not to do any work there until the yard is properly prepared for such work, including the dock.

The CHAIRMAN. The dock is not ready?

Admiral CAPPS. No, sir.

The CHAIRMAN. It will be ready before long?

Admiral CAPPS. The dock itself is in a very advanced stage, but a great deal of dredging will have to be done in order to get to the dock.

Mr. LOUD. Have we not enough yards in commission to do all the work?

Admiral CAPPS. I think I stated last year that if it was a pure question of doing the work and the work was properly distributed it could all be done in two yards. That does not take into account the necessities in time of war, however, or even the exigencies in time of peace when fleet operations have to be considered.

Mr. LOUD. I referred to the time of peace.

Admiral CAPPS. In time of peace the maintenance of the fleet could be taken care of by three yards, two on this coast and one on the Pacific coast, provided, of course, that only portions of the fleet were sent to these yards from time to time. That would seriously interfere, however, with the fleet programme.

The CHAIRMAN. The *Connecticut* was built in the New York Navy-Yard. Has she gone into commission?

Admiral CAPPS. She has been in commission for some time, and has sailed from New York.

The CHAIRMAN. Have you made your report upon her?

Admiral CAPPS. As to the cost?

The CHAIRMAN. Yes, sir.

Admiral CAPPS. We have asked for details of the final cost, but the data is not yet in shape for suitable presentation.

The CHAIRMAN. When will you be able to make that report?

Admiral CAPPS. I hope to obtain a final report within the next few weeks.

The CHAIRMAN. We would also like a report of the amount that was expended to get that yard into shape to build the *Connecticut*.

Admiral CAPPS. That is a more difficult thing. I can give it to you, but it means an arbitrary statement of what was spent for the *Connecticut* and the improvement of the yard as a whole. The *Connecticut* was built when a great deal of other work was being carried on concurrently, and it would mean an arbitrary decision as to what was purely for the *Connecticut* and what was for the yard as a whole.

The CHAIRMAN. Can you state about what was the cost of the *Connecticut* as compared with that of the *Louisiana*?

Admiral CAPPS. The cost of the *Connecticut*, without the armor and armament, will be very close to \$4,600,000. The cost of the *Louisiana*, as compared with similar work done by the Government, will be in the neighborhood of \$4,200,000.

The CHAIRMAN. A difference of about \$400,000?

Admiral CAPPS. Yes, sir.

Mr. LOUD. Did that \$4,600,000 include a portion of the fixed expenses of the yard?

Admiral CAPPS. It includes all the cost of power and the cost of foremen and the proportionate cost of salaries of officers, and all that sort of thing; but no charges in the navy-yard take into account a depreciation of the plant as a whole, or repairs or renewals. In other words, the cost of work at a navy-yard can not be accurately compared with the cost of work at private establishments.

Mr. LOUD. But it includes a portion of the administrative force—the pay department, etc.?

Admiral CAPPS. All of that; in fact, the cost of the services of all the personnel concerned.

The CHAIRMAN. Has this vessel been given a trial trip?

Admiral CAPPS. She has just left the navy-yard.

The CHAIRMAN. She will be given a trial trip?

Admiral CAPPS. Yes, sir. The *Connecticut* has at present a comparatively green crew, and it is desired by the authorities to give them a chance to know the ship before having a formal trial. It is

also desired to utilize the *Connecticut* in the forthcoming naval maneuvers, so that a trial at this time seems impracticable.

The CHAIRMAN. What was the difference in time of the building of those two ships?

Admiral CAPPS. I think it is fair to say that the time of construction of each ship was about the same. The *Connecticut*, at the time of the delivery of the *Louisiana*, was at about the same stage of completion. The *Louisiana* was placed in commission before the *Connecticut* for the reason that it was necessary to take over the vessel from the contractors in an incomplete state, due to the nondelivery of material, for which the Government was responsible. To have forced the contractors to hold the vessel until such material was delivered and installed would possibly have involved the Government in suits for damages for delay in matters for which it was itself responsible. The vessel being delivered, it was advisable to put a crew on board and complete the work at the navy-yard.

Mr. KITCHIN. Why was the Government negligent in delaying that matter?

Admiral CAPPS. The Government was not negligent, but subcontractors were delayed in their deliveries. The principal material which caused delay was armor and armament, particularly armament; also some electrical material. The contract provided that the contractors install this material, but there were many delays in delivery, due to various causes, and the material could not be completely installed by the contractors.

Mr. KITCHIN. Can you recall whether the same contractors were to furnish this material for the *Louisiana* and the *Connecticut*?

Admiral CAPPS. In some cases they were the same.

Mr. KITCHIN. Did they deliver it to the *Louisiana* prior to delivering it to the *Connecticut*?

Admiral CAPPS. In the case of motors, guns, etc., they did not. That was the material that was delaying the completion of the ship, and to protect itself the Government accepted delivery under the terms of the contract.

Mr. KITCHIN. Did all these private contractors apparently exert themselves to comply with the contracts on the *Connecticut* as much as on the *Louisiana*?

Admiral CAPPS. I do not think there was any discrimination.

The CHAIRMAN. There was no partiality shown, in your judgment?

Admiral CAPPS. None whatever. There were some deliveries of armor in the early stages of building that were made more promptly on the *Louisiana*, but later the *Connecticut* was given preference. The Department, as far as I am aware, did its best to give equal consideration to each ship.

The CHAIRMAN. You gave us the cost of the hull and machinery, which showed a difference of about \$400,000. On the total cost of the ship, how did it come out?

Admiral CAPPS. The other articles would be common to the two ships inasmuch as they are material supplied by the Government.

The CHAIRMAN. The real difference in cost of the hull and machinery would constitute the difference on the whole ship?

Admiral CAPPS. Yes, sir; of course that does not include the cost of leave and holidays. That is charged to a separate account.

The CHAIRMAN. What would that amount to?

Admiral CAPPS. I can not give it to you exactly; in the neighborhood of \$150,000, I should say.

Mr. KITCHIN. What about the cost of inspection?

Admiral CAPPS. That is all included.

Mr. KITCHIN. In both cases?

Admiral CAPPS. Yes, sir.

Mr. LOUD. Have you begun work on the two colliers?

Admiral CAPPS. Yes, sir.

Mr. LOUD. Are the keels laid?

Admiral CAPPS. No, the keels are not laid. The material is ordered, but it has not been received.

The CHAIRMAN. Will the statement of cost of the *Louisiana* and *Connecticut* show the difference in cost of the various items?

Admiral CAPPS. No, sir; it would show only the difference in total cost of the two vessels, also the cost of changes on the two vessels, since it is not expected that the contractor will give details of the cost of his work, the only cost upon which the Department can count with certainty being the contract price and the cost of changes. It is quite probable that the difference in cost of the two vessels is largely due to the difference in the hours of labor and a slight difference in the actual cost of labor at the two yards, the per diem pay for nearly all kinds of labor being greater at New York than at Newport News. However, the contract price of a vessel does not necessarily mean the actual cost of building the vessel.

The CHAIRMAN. He makes a profit?

Admiral CAPPS. The builder undoubtedly aims to make a profit, but in some cases I think it has been very close to a deficit.

The CHAIRMAN. There is a good deal of competition, is there not?

Admiral CAPPS. The competition is very keen. For instance, a sister ship to the *Louisiana* was contracted for more than two years later at a price more than \$240,000 less than that named in the contract for the *Louisiana*.

Mr. LOUD. Who is building it?

Admiral CAPPS. The New York Shipbuilding Company. The contract price in this case will, under normal conditions of labor, afford an extremely small margin, if any. The bid of the Newport News Shipbuilding Company was even less, but could not be accepted, as they were also the lowest bidders for the two armored cruisers.

The CHAIRMAN. So there is active competition?

Admiral CAPPS. The competition has been very active.

Mr. KITCHIN. It was known, however, that the Government was going to build the sister ship at the time?

Admiral CAPPS. In the case of the *Louisiana*; yes, sir.

Mr. KITCHIN. The contract price for the *Louisiana* was greater than the bid made subsequently for a similar ship by the same contractors?

Admiral CAPPS. At the time of the opening of the bids for the *New Hampshire* the Newport News Shipbuilding and Dry Dock Company, which had the contract for the *Louisiana*, bid about \$100,000 less than the New York Shipbuilding Company for the same ship, but they could not be awarded the contract, because Congress had explicitly limited the number that could be given to any one firm to two vessels.

Mr. KITCHIN. How did that bid for the *New Hampshire* compare with the bid for the *Louisiana*?

Admiral CAPPS. By the same firm, \$340,000 less.

Mr. KITCHIN. Less than for the *Louisiana*?

Admiral CAPPS. Yes, sir; less than was bid by the same firm for the *Louisiana* two years before.

Mr. KITCHIN. It looks like when the Government begins to build they try to build ships for less?

Admiral CAPPS. No; so far as I am aware, there has nearly always been keen competition. As indicating that building in Government yards was not the controlling factor it may be noted that the very next year after the *Louisiana* was contracted for the lowest bid price for the *Vermont*, *Kansas*, and *Minnesota* was \$120,000 more than for the *Louisiana*, although they were sister ships of the *Louisiana*. and the next year following the bid prices for the same class of vessel were very much less.

Mr. KITCHIN. Is there any general cause, so far as you know, for these variations in price?

Admiral CAPPS. Of course, the general condition of the labor and material market has to be considered, but even these conditions do not seem to be controlling. Within certain limits, the condition of work at any particular yard has an important bearing. It may be that a certain yard is quite out of work; under such conditions they are apt to—in fact, for business reasons, they must—bid just as low as they deem prudent. They need the work and must have it. If a yard is full of work it can afford to take chances and make a higher bid.

Mr. LOUD. Would it not be more economical for the yard if they had a second ship to build exactly like the first one?

Admiral CAPPS. Unquestionably.

The CHAIRMAN. You do not think any large profits have been made?

Admiral CAPPS. No, sir. I think, on the contrary, that the cost of our ships has been very moderate.

The CHAIRMAN. Is there any combination among any number of the shipyards.

Admiral CAPPS. Not to my knowledge.

The CHAIRMAN. I have heard recently that the Scott yard out in San Francisco was a part of the combination.

Admiral CAPPS. The United States Shipbuilding Company included, among others, the Union Iron Works, of San Francisco, Cal., Harlan & Hollingsworth Company, of Wilmington, Del., and the Bath Iron Works, of Bath, Me.—all of which firms had held contracts for naval vessels at various times; but the United States Shipbuilding Company was soon dissolved, and I believe that the majority of the constituent firms are now acting independently under other ownership. Certainly there are quite a number of prominent shipbuilding firms which are entirely independent of one another, so far as I am aware.

The CHAIRMAN. I wish you would place the names of those firms in the hearing.

Admiral CAPPS. Yes, sir. Of course I know nothing of the details of their corporate organization, but, so far as my knowledge goes, the following shipbuilding firms, which are now doing Government work.

are quite independent of one another: The Bath Iron Works Company, of Bath, Me.; the Fore River Shipbuilding Company, of Quincy, Mass.; the New York Shipbuilding Company, of Camden, N. J.; the Wm. Cramp & Sons Ship and Engine Building Company, of Philadelphia, Pa.; the Newport News Shipbuilding and Dry Dock Company, of Newport News, Va.; the Union Iron Works, of San Francisco, Cal., and the Moran Brothers Company, of Seattle, Wash.

The CHAIRMAN. The next item is "Construction and machinery." On account of hulls and outfits of vessels and steam machinery of hulls heretofore authorized, \$12,713,915.

Admiral CAPPS. That estimate is based upon the actual prospective amount required during the next fiscal year to pay the bills as they become due on vessels building by contract.

The CHAIRMAN. Will that cover all the ships now authorized?

Admiral CAPPS. All the ships authorized, including No. 28.

The CHAIRMAN. That will pay all the bills?

Admiral CAPPS. Yes, sir; under "Construction and machinery" for the next fiscal year.

The CHAIRMAN. Next year what will the amount probably be?

Admiral CAPPS. The fiscal year 1908-9?

The CHAIRMAN. Yes, sir.

Admiral CAPPS. Less than \$7,000,000.

The CHAIRMAN. Will that complete the ships?

Admiral CAPPS. No, sir; there will be work in progress in 1910 and also in 1911. Battle ship No. 28 will carry over until 1911. I presume you want the total cost to complete all the ships heretofore authorized?

The CHAIRMAN. Yes; authorized.

Admiral CAPPS. That will be, for "Construction and machinery," in round numbers, \$44,000,000.

The CHAIRMAN. Can you put in a statement showing how this money will be expended?

Admiral CAPPS. Yes, sir; I will. (See Appendix No. 4.)

The CHAIRMAN. Battle ship No. 28—what ship is that?

Admiral CAPPS. Battle ship No. 28 is the ship plans of which are now before Congress.

The CHAIRMAN. Will the \$44,000,000 include that?

Admiral CAPPS. Yes, sir.

The CHAIRMAN. Irrespective of that, what would be the total amount?

Admiral CAPPS. \$6,000,000 less, or \$38,000,000.

The CHAIRMAN. What part of this estimate of \$12,713,915 asked for this year relates to battle ship No. 28?

Admiral CAPPS. \$1,562,500.

The CHAIRMAN. The plans and specifications for that ship have been sent to Congress?

Admiral CAPPS. The preliminary plans and specifications have been sent to Congress. The Secretary of the Navy sent a letter of transmittal to the Speaker of the House of Representatives and one to the President of the Senate. The documents accompanied the letter addressed to the President of the Senate. I believe.

APPENDIX No. 1.

Statement showing expenditures from appropriation, "Construction and repair, 1907," from July 1 to November 30, 1906.

	Allowed for labor.	Requisitions for material.	Total.
Prior to July 1, 1906.....		\$307,364.27	\$307,364.27
July, 1906.....	\$406,402.00	217,630.09	624,032.09
August, 1906.....	386,917.46	117,652.63	454,570.09
September, 1906.....	336,596.94	98,146.18	429,743.12
October, 1906.....	279,689.48	232,335.63	511,925.11
November, 1906.....	381,455.48	131,204.25	512,659.73
	1,740,961.36	1,099,333.05	2,840,294.41
Less balance unexpended at navy-yards Nov. 30, 1906..	63,250.00		
Less difference between estimated and actual cost on requisitions for material.....		103,858.38	
	1,677,711.36	995,474.67	2,673,186.03
Naval supply fund and transfers at navy-yards (as reported for July and August and estimated for September, October, and November).....			271,289.31
Foreign bills (as reported for July and August and estimated for September, October, and November).....			324,707.23
Miscellaneous (advertising, telegrams, expressage, etc., balance of fiscal year).....			1,000.00
Total.....			3,270,182.57

Appropriation, "Construction and repair, 1907".....\$7,900,000.00
 Expended, etc., as above to December 1, 1906.....3,270,182.57

Available balance December 1, 1906.....4,629,817.43

Average monthly expenditure for five months ending November 30, 1906.....654,036.00
 Average possible monthly expenditure for seven months to June 30, 1906.....661,403.00
 (Monthly allotment by division of total appropriation into 12 parts. \$668,333.)

APPENDIX No. 2.

Statement of expenditures at United States navy-yards and stations from appropriation "Construction and repair" for the fiscal year ended June 30, 1906.

Navy-yard or station.	Labor.	Material.	Total.	Period of time.
Portsmouth.....	\$287,823.30	\$158,839.31	\$446,662.61	Fiscal year 1906.
Boston.....	538,734.09	265,183.56	803,917.65	Do.
New York.....	1,145,786.37	668,072.38	1,813,858.75	Do.
League Island.....	434,041.42	186,534.57	620,575.99	Do.
Washington.....	90,763.32	28,091.29	118,854.61	Do.
Norfolk.....	628,367.94	380,489.69	1,008,857.63	Do.
Pensacola.....	147,411.82	108,077.02	255,488.84	Do.
Mare Island.....	581,506.91	312,414.24	844,011.15	Do.
Puget Sound.....	235,099.28	78,712.66	313,811.94	Do.
Cavite.....	400,748.10	346,110.17	746,858.27	Do.
Naval training station.....	3,182.12		3,182.12	Do.
Naval torpedo station.....	2,837.70	829.17	3,666.87	Do.
Port Royal.....	7,031.63	6,065.18	13,096.81	Do.
Key West.....	2,904.83	1,026.13	3,930.96	Do.
New Orleans.....	21,877.66	7,482.66	29,440.22	Do.
San Juan.....	2,783.80	2,404.07	5,187.87	Do.
Culebra.....	240.00		240.00	Do.
Tutulla.....	152.46	8.91	161.37	Do.
Total.....	4,481,482.65	2,550,321.01	7,031,803.66	

Bureau expenditures.

Open contract, services (labor and material) rendered by outside parties entirely, such as supplying and installation of proprietary articles or other material of special manufacture, when such method of supply and installation is advantageous to the Government; also telephone, telegraph, and other miscellaneous services.....	\$51,684.09
Issues from naval supply fund to vessels in commission and to small stations involving direct charge to appropriation for construction and repairs.....	375,216.00
Public bills, expenditures on vessels in commission authorized by commanding officer in payment for work under cognizance of Bureau of Construction and Repairs (not including Cavite).....	100,960.87
Estimated amount required to meet outstanding obligations for material contracted for and not delivered or for which bills have not been received.....	240,000.00
Total estimated expenditures	7,799,664.62

APPENDIX No. 3.

Statement of expenditures under appropriation "Construction and repair," from July 1, 1905, to June 30, 1906.

[This statement is prepared from data taken from the monthly returns of expenditures sent direct to this Bureau. It will be noted that the titles of charges, as specified in the Navy Regulations, are given, a brief description of the objects of charge under these titles being added thereto.]

	Labor.	Material.	Total.
Titles "D" and "P," repairs to such integral parts of a ship, ordinarily not transferable fixtures, as were objects of direct charge to the hull of the ship, under Title "A," including expenditures for additions, improvements, and alterations in the original construction and arrangements; also repairs made at navy-yards to articles on board ships in commission and originally chargeable to Title "B".....	\$2,165,228.84	\$817,050.09	\$2,982,278.93
Titles "E" and "F" include charges to stations on account of fixed and movable property, such as dry and other dock, wharves, storehouses, ship houses, machine shops, etc.; also movable property, such as derricks, shears, scows, cranes, pile drivers, and tugs not borne upon the Navy Register, tenders, launches, lighters, boats, etc., not belonging to a receiving or other ship but pertaining to the station proper, etc.; cost of machinery plant, including plant for producing or transmitting power, including engines, shafting, boilers and appurtenances; machinery and machine tools for manufacturing purposes.....	406,052.77	586,837.08	992,889.85
Title "G," general maintenance, includes cost of upkeep of all yard craft, tools, machinery, appliances, etc., noted under Titles "E" and "F"; also fuel, and hand tools used in general shops, etc.; also care and preservation of all vessels not in commission.....	1,011,879.46	330,306.00	1,342,185.46
Title "N" and so much of Title "V" as does not cover pay for holidays. Title "N" includes expenditures for completed models of ships and experimental work in general. Title "V" comprises miscellaneous expenditures for advertising, telegraphing, telephoning, printing, photographing, and express charges, drawing materials, etc.....	108,285.58	22,121.28	130,406.86
Title "V": Payments on account of leave and holidays, in accordance with statute law, no work being given in return therefor.....	305,257.23		305,257.23
Title "Z" embraces the cost of all articles manufactured by the Government for the Naval Establishment and delivered to general storekeepers for issue.....	484,778.72	794,006.56	1,278,785.28
Outfits and stores issued by general storekeepers direct from naval supply fund to vessels in commission.....		375,216.00	375,216.00
	4,481,482.65	2,925,537.01	7,407,019.66
Requisitions for services rendered and miscellaneous Expenditures for repairs, supplies, etc., to vessels in commission away from navy-yards.....			51,684.09
			100,960.87
Total as shown on records of Bureau of Construction and Repair.....			7,559,664.62
Outstanding obligations and unreported expenditures (estimated).....			240,000.00
			7,799,664.62

APPENDIX No. 4.

Statement showing total amount necessary to be appropriated for completion of hulls and machinery of vessels already authorized, this amount including the \$12,713,915 estimated for "Increase of the Navy, construction and machinery," and to be carried by the naval appropriation bill now under consideration.

Class and name of vessel.	Amount.
All ships preliminarily accepted prior to July 1, 1906, with final payments in fiscal year 1907	\$1,474,458
Battle ships:	
Nebraska	936,271
Georgia	261,098
Vermont	853,741
Kansas	895,705
Minnesota	660,705
Mississippi	1,304,469
Idaho	1,408,822
New Hampshire	2,662,282
Battle ship No. 28	6,030,000
South Carolina	4,546,765
Michigan	4,546,765
Armored cruisers:	
California	619,526
South Dakota	753,533
Tennessee	343,473
Washington	442,424
North Carolina	2,749,568
Montana	3,036,281
Protected cruisers:	
St. Louis	281,453
Milwaukee	373,701
Scout cruisers:	
Chester	1,481,804
Birmingham	1,468,392
Salem	1,524,223
Colliers:	
Vestal	1,538,412
Prometheus	1,547,666
Torpedo boat destroyers:	
Nos. 17, 18, and 19	2,250,000
Total	43,991,522

NOTE.—There is included in the above-stated amounts the cost of outfits under the two Bureaus.

APPENDIX No. 5.

List of new vessels already authorized which will probably be commissioned during the fiscal years 1907, 1908, 1909, and 1910:

December, 1906, to June 30, 1907:	1907-8—Continued.
Battle ships—	Scout cruisers—
Nebraska.	Chester.
Vermont.	Birmingham.
Kansas.	Salem.
Minnesota.	
Armored cruisers—	1908-9:
California.	Colliers—
South Dakota.	Vestal.
	Prometheus.
1907-8:	1909-10:
Battle ships—	Battle ships—
Mississippi.	South Carolina.
Idaho.	Michigan.
New Hampshire.	
Armored cruisers—	
North Carolina.	
Montana.	

APPENDIX No. 6.

Estimated amount of expenditure on vessels under construction, heretofore authorized, for the fiscal year 1908. Appropriation, "Increase of the Navy; construction and machinery."

Name of vessel.	Amount.	Name of vessel.	Amount.
Nebraska.....	\$70,000	North Carolina.....	\$958,137
Vermont.....	80,000	Montana.....	1,249,828
Kansas.....	80,000	Chester.....	666,106
Minnesota.....	80,000	Birmingham.....	575,157
Mississippi.....	70,000	Salem.....	674,823
Idaho.....	225,832	Vestal.....	662,804
New Hampshire.....	1,080,070	Prometheus.....	665,889
South Carolina.....	1,477,312	Torpedo-boat destroyers Nos. 17, 18, and 19.....	878,571
Michigan.....	1,501,886	Total.....	12,713,915
Battle ship No. 28.....	1,562,500		
California.....	80,000		
South Dakota.....	80,000		

APPENDIX No. 7.

Statement showing condition of work on vessels under construction for the United States Navy on December 1, 1906.

BATTLE SHIPS.

No.	Name of vessel.	Speed.	Building at—	Per cent of completion.	
				Nov. 1.	Dec. 1.
		<i>Knots.</i>			
14	Nebraska.....	19	Moran Bros. Co.....	97	97.5
18	Connecticut.....	18	Navy-yard, New York.....	99.72	99.72
20	Vermont.....	18	Fore River Shipbuilding Co.....	95	96
21	Kansas.....	18	New York Shipbuilding Co.....	93.1	95.2
22	Minnesota.....	18	Newport News Shipbuilding Co.....	97	98
23	Mississippi.....	17	Wm. Cramp & Sons.....	67.82	69.6
24	Idaho.....	17	do.....	64.03	65.16
25	New Hampshire.....	18	New York Shipbuilding Co.....	54.3	57
26	South Carolina.....		Wm. Cramp & Sons.....	.6	3.14
27	Michigan.....		New York Shipbuilding Co.....	.85	1.51

ARMORED CRUISERS.

6	California.....	22	Union Iron Works.....	96.1	97
9	South Dakota.....	22	do.....	93.4	93.5
12	North Carolina.....	22	Newport News Shipbuilding Co.....	63.28	66.35
13	Montana.....	22	do.....	36.84	60.62

PROTECTED CRUISER.

21	Milwaukee.....	22	Union Iron Works.....	99.4	99.9
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TRAINING SHIPS.

....	Cumberland.....	Sails..	Navy-yard, Boston.....	99.9	99.9
....	Intrepid.....	Sails..	Navy-yard, Mare Island.....	100

SCOUT CRUISERS.

....	Chester.....	....	Bath Iron Works.....	51.9	54.83
....	Birmingham.....	....	Fore River Ship Building Co.....	50.7	53.7
....	Salem.....	....	do.....	50.7	54

Statement showing condition of work on vessels under construction for the United States Navy on December 1, 1906—Continued.

SUBMARINE TORPEDO BOATS.

No.	Name of vessel.	Speed.	Building at—	Per cent of completion.	
				Nov. 1.	Dec. 1
		<i>Knots.</i>			
....	No. 9.....		Fore River Ship Building Co.....	90	90
....	No. 10.....		do.....	81.5	82.7
....	No. 11.....		do.....	92	92
....	No. 12.....		do.....	78.8	81.1

[No. 12.]

STATEMENT OF ATTORNEY-GENERAL CHARLES J. BONAPARTE

COMMITTEE ON NAVAL AFFAIRS,
HOUSE OF REPRESENTATIVES.

Friday, January 18, 1907.

The committee met at 2.30 o'clock p. m., Hon. George E. Foss (chairman) in the chair.

There appeared before the committee Hon. Charles J. Bonaparte, Attorney-General of the United States, and Hon. Victor H. Metcalf, Secretary of the Navy, accompanied by Capt. Richard Wainwright, of the General Board, and Lieut. Commander William S. Sims, of the Bureau of Navigation.

STATEMENT OF HON. CHARLES J. BONAPARTE, ATTORNEY-GENERAL OF THE UNITED STATES.

The CHAIRMAN. Gentlemen, the Attorney-General, formerly the Secretary of the Navy, has come before us this morning. I have asked him here to-day in view of the fact that it was under his administration that these estimates were prepared, and I knew that certain members of the committee desired to ask questions on some of the estimates. One matter, Mr. Secretary, which the committee would like to hear about is with regard to the last contract for armor. I believe. I think Mr. Kitchin, of our committee, desired to hear from you on that question.

Attorney-General BONAPARTE. I think I have here, if I am not mistaken, all the papers relating to that. Here is the advertisement and the circular concerning armor for naval vessels, the specifications for them, copies of the several proposals received, and communications from the different persons—the different bidders. Here is the indorsement of the Bureau of Ordnance on the subject, and here is the memorandum that I prepared at the time of the giving out of the contract, and here are sundry letters. There is the correspondence with the different bidders on the subject transmitting the determination of the Department and expressing their assent to it.

The CHAIRMAN. All of which we can put in the record?

Attorney-General BONAPARTE. All of that you can put in the record. All this I would like to have put in with it, and that merely for the sake of avoiding possible confusion. [Handing papers to the stenographer.]

It will be found on reference to these papers that the indorsement of the Bureau of Ordnance bears date July 13, while the memorandum of the Department announcing its conclusions in the matter bears date July 12, so that it would appear on the face of the papers that the action had been taken before the advice of the Bureau

had been received. As a matter of fact, however, this indorsement had been shown to me in the rough by Admiral Mason, and my memorandum was prepared after seeing it. But in fair copying there was a delay in copying his, which causes that apparent discrepancy in dates. The matter is also referred to on pages 21 to 23 of the annual report of the Secretary of the Navy for last year. I do not know that I myself care to say anything more about it, but I would be very happy to furnish any explanation desired.

(The papers referred to will be found appended to this hearing.)

The CHAIRMAN. Next the committee wish to hear your reasons why the contract was awarded as it was. I believe that is what Mr. Kitchin had in mind.

Mr. KITCHIN. Yes; I will say that, as I understood, your main reason for dividing the armor-plate contract was that if you gave the entire bid to the Midvale people you feared the other armor-plate factories might go out of business and thereafter we would only have one bidder, and be subjected to, perhaps, conditions in which there would be no competition.

Attorney-General BONAPARTE. That was one reason.

Mr. KITCHIN. What occurs to me is this: Adopting the policy that you did adopt, does not that in itself have the effect, or will it not have the effect, to discourage competition? In other words, if it is the policy to divide the contract between various bidders, will not each bidder think that it is useless for him to bid a low bid, because he will get half of it anyway, or a part of it anyway?

Attorney-General BONAPARTE. I did not think it would have that effect. I ought perhaps to say that that was a reason, but not quite the whole reason, for my action. I entertained some doubt as to the ability of the Midvale company to deliver the whole of the armor under that contract within the time fixed. As a matter of fact, an extension of time has been granted to them. It is proper to say in that connection that they professed their willingness—declared their willingness and ability—to make the deliveries within the time, but I had some rather serious and, I think, rather reasonable doubts, from the experience that the Department had with them, whether the most expeditious delivery and the best results would be obtained by giving them the contract. But the thing which most influenced me was the fact that the other two companies were almost out of their deliveries, and the report of the Bureau of Ordnance, the testimony of Admiral Mason at your previous hearing, shows that they have as a matter of fact practically delivered by this time everything they had under previous contracts.

I thought, from the best information I could obtain, that if they ran out of work, these expensive plants would not be maintained for that purpose; that they would be converted to some other purpose, to the production of something for which there was a commercial demand, and that consequently we would find ourselves in the position of not having the plant to supply a large demand if it should arise in the near future. I did not think it would have the effect of discouraging competition, but I do not hesitate to say that I think there will be, as long as so few firms manufacture armor, and as long as the Government is their only customer, a very considerable probability of the armor manufacturers forming combinations among

themselves. That seems to be something that would be strongly indicated by the situation of affairs.

Mr. MUDD. Do you mean the situation of affairs at the time of your last contract, or heretofore?

Attorney-General BONAPARTE. Heretofore and hereafter.

Mr. KITCHIN. Do you not think that the policy of dividing the contract, so that you require the higher bidder to go to the lower bidder, has a tendency in itself—is almost enough in itself—to cause a discouragement that would forbid a bidder hereafter from bidding his lowest bid?

Attorney-General BONAPARTE. I did not think so. I thought that giving the lowest bidder one-half of the contract and each of the others one-fourth, requiring the others to come down to the lowest bid, was a sufficient encouragement to the lowest bidder. I will say that the only difficulty I had at all in this question was as to the law. I think the law is obscure on the subject, the language being "that no part of this appropriation shall be expended for armor for vessels except upon contracts for such armor when awarded by the Secretary of the Navy to the lowest responsible bidder, having in view the best results and most expeditious delivery."

That language did not seem to me very clear, and it was not until after I had considered the matter with no little care that I made up my mind that I had the discretion to take the course that I did under the law. I did, however, reach that conclusion, of course; otherwise I would not have taken that course.

The CHAIRMAN. Are there any further questions on this?

Mr. PADGETT. I would like to ask the Attorney-General a question.

The CHAIRMAN. Mr. Padgett.

Mr. PADGETT. Mr. Secretary, was not the practical effect of your action to serve notice upon the steel trust that it would get a part of the contract regardless of its bid?

Attorney-General BONAPARTE. By "steel trust" I suppose you mean the Bethlehem and Carnegie companies?

Mr. LOUDENSLAGER. The Bethlehem is not in the steel trust.

Attorney-General BONAPARTE. It is not in the trust; but still what Mr. Padgett means is undoubtedly those two companies.

Mr. PADGETT. Yes.

Attorney-General BONAPARTE. The Bethlehem company, as remarked, is not in the steel trust, technically, so termed, but it was generally supposed, and I think probably with reason, that the two companies mentioned had formed a combination, had formed an agreement among themselves, that they would make identical bids in the years past. They did not adhere to that agreement, if there was any such agreement, with the bids which they made this year. I did not think it would have the effect suggested. I think that the result would be to make them understand that the Department was going to act on the principle of getting the armor at the lowest possible rate for the Government, with due regard to the possible future exigencies of the situation.

Mr. MUDD. May I ask if you know what progress has been made since the awarding of the contract toward delivery or manufacture and delivery on the armor by the Midvale company?

Attorney-General BONAPARTE. That is given. I think, in this report of Admiral Mason. In this testimony of his he says:

This recommendation met with the approval of the Navy Department, and the contracts for armor were so awarded, approximately 3,004 tons being awarded the Midvale Steel Company and 1,847 tons each to the Bethlehem Steel Company and Carnegie Steel Company.

At present date the Bethlehem and Carnegie steel companies have completed the deliveries of all armor due under previous contracts except a few "shutter" plates, delayed awaiting templates to be furnished them, which delay is beyond their control, and a few sighting hoods. Both firms have commenced the manufacture of the armor awarded them by the contracts of last August.

There remains at present date to be delivered by the Midvale Steel Company approximately 1,250 tons under contract of December 15, 1903, and 1,000 tons (all) under contract of April 5, 1905.

That is only begun.

The Bureau as yet has received no notice that the manufacture of armor under the contract of last August has begun.

The possible imposition of penalties suggested above, in paragraph 8 of Bureau of Ordnance indorsement, has not been necessary.

The Midvale Steel Company has been granted, under the terms of its contracts and since the award of the contracts last August, forty-eight days' extension of time for required deliveries of armor due under its previous contracts as a reasonable consideration for unavoidable delays due to the breaking down of certain machines.

I do not know exactly when this testimony was delivered, but it must have been about the time that I left the Department, and at that time the Department had no information that the Midvale company had commenced the manufacture of the armor due under these contracts. I do not know what has happened since.

Mr. MUDD. Do you know if the armor manufactured by each of them is of the same kind? Do you know if it is equal in value?

Attorney-General BONAPARTE. What is covered in this contract ought to have been.

Mr. MUDD. All of the Krupp armor, as it speaks of it.

Attorney-General BONAPARTE. Do you mean under these contracts?

Mr. MUDD. Under the last contract, which you awarded one-half to the Midvale company and one-half to two of the others.

Attorney-General BONAPARTE. Deliveries of course have not yet commenced under this contract, so that it is impossible to tell that it will be. At the time when the previous contract was awarded by Secretary Morton a very vigorous fight was made by the other two contractors. Of course I did not know this of my own personal knowledge, but I know it from the records of the Department. A very vigorous fight was made by the other two competitors against awarding any of the contract to the Midvale company, on the ground that it had not the necessary plant. After a great deal of discussion Mr. Morton gave them a thousand tons of armor under that contract, and it was provided that there should be an inspection of their plant by a board of officers and a report made on the subject early the following spring. They objected to that inspection being made, on the ground that it would be a sort of reflection upon them. Nevertheless, I did have it made, and the report was decidedly favorable to the Midvale.

As you have noticed, none of that 1,000 tons of armor has yet been delivered, but, so far as I remember, the deliveries under the armor

bought from them previous to that contract have been satisfactory, and the character of the armor has been satisfactory.

Mr. MUDD. We have been buying, as I understand, Krupp armor, or armor treated by the Krupp process?

Attorney-General BONAPARTE. Do you mean the harveyized or the Krupp process?

Mr. MUDD. No; have we not been getting the Krupp process the last few years, and considering it the best?

Mr. KITCHIN. Do you remember what the Midvale people represent as the annual capacity of their plant at this time?

Attorney-General BONAPARTE. No; I do not remember, now. I think I heard at the time of the contract. At the time when this contract was delivered I had a visit from the president of the Midvale company and two other gentlemen connected with it, just before the delivery was made, while it was under consideration, and I had a very frank interchange of views with them at that time. They said in substance that they wanted to get the whole of the contract, and claimed that they could do all of the work; but they said that they would make no objection to the Department dividing the contract if it considered that that was to the public interest.

Mr. KITCHIN. I notice in one of the reports that the output of the three armor-plate plants is placed at 30,000 tons annually.

Attorney-General BONAPARTE. That is the possible output, you mean?

Mr. KITCHIN. I meant it was the capacity of the three plants.

Attorney-General BONAPARTE. I do not think there has ever been 30,000 tons lately.

Mr. KITCHIN. No; not that demand on them for one year.

Attorney-General BONAPARTE. No.

Mr. KITCHIN. But I mean that is the capacity of all three of the plants as now organized.

Attorney-General BONAPARTE. I could not speak on that subject without refreshing my memory.

Mr. COUSINS. Might I ask how many thousand tons, or what amount, of armor plate it requires to armor a vessel, for instance, of the *Dreadnought* type?

Attorney-General BONAPARTE. I could not answer as to the *Dreadnought* type.

Captain WAINWRIGHT. About 35 per cent of the displacement; a little over 6,000 tons.

Attorney-General BONAPARTE. The amount for these vessels, the *South Carolina* and the *Michigan*, was 7,388 tons.

Mr. MUDD. For both or for one?

Attorney-General BONAPARTE. For the two of them. That is about 3,700 tons each.

Mr. COUSINS. Does the Department still maintain a thorough test of all the armor plate that is furnished?

Attorney-General BONAPARTE. Oh, yes.

Mr. COUSINS. And do our officers view or inspect the production of it at the plants?

Attorney-General BONAPARTE. Yes.

Mr. COUSINS. Is there not a way, then, of determining the superiority of these two, the Krupp or the harveyized, or whether one is merely the other?

Attorney-General BONAPARTE. Well, there seem to be some differences of opinion as to the identity of some of the processes.

The CHAIRMAN. Are there any further questions, gentlemen, on this subject?

Mr. ROBERTS. As a matter of curiosity, I would like to ask the Attorney-General which process the Midvale people employ, the Krupp or Harvey process?

Attorney-General BONAPARTE. My recollection is that they deny they are using the Harvey process. The Harvey people claim that they are. The Harvey people are trying to get up the evidence for a law suit against the Midvale people. They came and asked the Department to give them some information relating to the transactions with the Midvale people to use in the suit. The Department informed the Midvale people that the Harvey people had asked for this information with that amiable purpose, and the Midvale people objected to the information being given.

Mr. ROBERTS. What process do the Carnegie and the Bethlehem people employ?

Attorney-General BONAPARTE. Either of them can employ either of these processes, as I understand it.

Mr. ROBERTS. Which are they employing?

Attorney-General BONAPARTE. I understand that they employ the Harvey process chiefly, but that they may employ either.

Mr. ROBERTS. That is, the Bethlehem and the Carnegie companies?

Attorney-General BONAPARTE. That is what I understand. But you understand that what was offered to these three competitors was exactly the same thing. One was not assigned a different thing from the others. The armor was divided, one-half to the Midvale people and one-fourth to each of the other two.

Mr. ROBERTS. I understand the Attorney-General to say that the Navy Department does not care what process is employed in hardening this armor, provided it passes certain tests.

Attorney-General BONAPARTE. On that subject I think it would be probably better to hear from the Bureau of Ordnance. The specifications are filed here.

Mr. ROBERTS. Would that give any information to a layman?

Attorney-General BONAPARTE. How much, I can not say. I would not like to say positively whether I had read them or not. I may have read them.

Mr. ROBERTS. I think a description of the armor would not convey a very definite impression to the layman, but to the man skilled in the processes it would, and he could tell. What I wanted to get at was whether we were getting any harveyized armor from either of these three concerns.

Attorney-General BONAPARTE. To answer that question, I believe we are getting no armor which is avowedly harveyized from the Midvale people. The Harvey people, I believe, claim that they are entitled to recover against that company. That is my understanding of the question.

Mr. ROBERTS. But is there not some common understanding as to the process which the Bethlehem and the Carnegie people are using—that is, as to whether it is the Krupp or the Harvey process?

Attorney-General BONAPARTE. They are using the Harvey process, if I rightly understand it.

Mr. ROBERTS. Yes.

Attorney-General BONAPARTE. My impression is that they can use both of them.

Mr. ROBERTS. Certainly, by paying the royalty.

Attorney-General BONAPARTE. Yes; by paying the royalty.

Mr. ROBERTS. But what are they using?

Attorney-General BONAPARTE. I would like to have you ask the Bureau of Ordnance about that.

Mr. VREELAND. Is not this the fact: The Government makes certain specifications and requires certain results?

Attorney-General BONAPARTE. Yes.

Mr. VREELAND. And the methods by which the manufacturers comply with those specifications and reach those results are none of our particular business, are they?

Mr. ROBERTS. That is the question that I asked a while ago.

Attorney-General BONAPARTE. That is, I suppose, what Mr. Roberts wants to find out.

Mr. ROBERTS. Yes.

Attorney-General BONAPARTE. Now, all I can say about that is that here are the specifications which prescribe what must be done. All three of these companies agree substantially. This is from the Carnegie company [referring to document]. It says: "We propose to assume liability for any royalties which must be paid for the use of any patented process which must be employed in its manufacture," referring to the armor. Therefore all of them agreed that if there were any royalties to be paid they would pay them. That, of course, was one of the matters to be considered in connection with the price.

Mr. LOUDENSLAGER. In the specifications you do not use the words "Krupp" or "harveyized," do you?

Attorney-General BONAPARTE. I do not think so.

Mr. LOUDENSLAGER. And we would not know very much about it if you did?

Attorney-General BONAPARTE. I am not altogether sure that you would know much more than I did.

Mr. ROBERTS. Just one more question, if I may be allowed. Then, as a matter of fact, we do not know the process—any technical name for the process—used in making the armor for our Navy. We know that the armor comes up to certain requirements of the Navy Department, and that is all we do know?

Attorney-General BONAPARTE. I would prefer that you would ask in regard to that of the experts who have special charge of the matter. It would not come under the cognizance of the Secretary of the Navy, except in the general supervision, but under the Bureau of Ordnance.

The CHAIRMAN. Are there any further questions on the armor proposition? Mr. Secretary, I note in your report that you have made recommendations as to a naval programme or increase of the Navy this year. I would like to ask you if you desire to state anything further to the committee with reference to the types of ships?

Attorney-General BONAPARTE. I think that is pretty fully stated in my report. My recommendation was that there be two additional vessels besides the one authorized, two squadron colliers larger than the two already authorized, four destroyers—torpedo-boat destroyers, of course—a river gunboat of the *Helena* type, two shallow-draft

river gunboats, and four motor torpedo boats for ships. One of the colliers—not these suggested, but one of those already authorized—it was also recommended should be so far modified that it could be used as an ammunition vessel. Those were the recommendations that were made in my report, and I did it after giving pretty careful consideration to what seemed to me the necessities of the case.

Mr. MUDD. May I ask one question here? Do I understand, Mr. Secretary, that you consider there is any need of any further legislation at all before you can go to work and contract for the ship that we authorized last year?

Attorney-General BONAPARTE. I do not.

Mr. MUDD. I do not so understand, but I have been reading this letter from the President, and there seems to be a doubt suggested therein.

Secretary METCALF. If there is any question about that, it should be cleared up by legislation.

Mr. MUDD. Some persons have gotten the idea that the President labored under the impression that there was some need for legislation in regard to that. That is very important.

Attorney-General BONAPARTE. That idea has been suggested, but I do not see that any necessity for further legislation exists. It seems to me, as the Secretary of the Navy has said, that if there is any room for doubt that doubt should be cleared up. But it did not seem to me that there was any room for doubt, and if I had remained Secretary of the Navy and Congress had taken no action at all I should have gone on and awarded contracts for that vessel.

Mr. MUDD. You do not think, as Secretary of the Navy, that there is any necessity of further legislation, nor you would not as Attorney-General? [Laughter.]

Attorney-General BONAPARTE. Now, wait. The question has not been referred to me as Attorney-General, and I do not know what I would think if I was Secretary of the Navy now; but at the time I ceased to be Secretary of the Navy that was my opinion.

Mr. MUDD. As a matter of fact, nothing had been done in the way of entering upon a contract for that vessel when you left the Navy Department?

Attorney-General BONAPARTE. No, sir.

Mr. MUDD. Is there any reason for delaying that matter now, not believing that any further legislation is needed?

Attorney-General BONAPARTE. That would seem to be a matter for the present Secretary of the Navy. I understood the law to mean this, that before giving out any contract the Secretary of the Navy should submit the general plans of the vessel to Congress. Now, that was done on the first day of the session. This is the language. It says:

Before any proposals for said battle ship shall be issued, or any bids received and accepted, the Secretary of the Navy shall report to Congress at its next session full details covering the type of such battle ship, and the specifications for the same, including its displacement, draft, and dimensions, and the character and extent of armor and armament therefor.

Mr. LOUDENSLAGER. Has that been reported to Congress?

Attorney-General BONAPARTE. Yes; the first of the present session.

Mr. LOUDENSLAGER. Do you know what the number of that document was?

Mr. ROBERTS. If I am not mistaken, you will find a copy of the letter of transmittal in my drawer in the table here.

Mr. LOUDENSLAGER. Then, as Secretary of the Navy, you would have believed that you had authority the next day to send out bids?

Attorney-General BONAPARTE. Strictly speaking, that might be true; but I would have regarded it as respectful to Congress not to do so until it had had a reasonable time to take action in the matter.

Mr. LOUDENSLAGER. I am speaking of the legal side of it.

Attorney-General BONAPARTE. On the legal side of it, I think I should. But Congress might think that this vessel was not big enough, and it ought to be larger and more expensive, and therefore Congress might take some action modifying its previous action.

The CHAIRMAN. But in case Congress did not take any action during this session, you felt, or would have felt, perfectly justified in going ahead?

Attorney-General BONAPARTE. I would have felt justified, unless I had had some change of heart between that time and the time it was necessary to advertise for bids.

Mr. KITCHIN. You would hardly go ahead unless Congress had made some appropriation toward it, would you?

Mr. MUDD. We have never done that.

Mr. KITCHIN. But we already have the plans now.

Attorney-General BONAPARTE. It would probably not have been absolutely necessary to have had any money appropriated, although it would have been very desirable; but it would not be necessary to have any money actually appropriated for the vessel until the following year.

Mr. KITCHIN. I have understood heretofore that it was not necessary because it took about twelve months to prepare the plans.

Attorney-General BONAPARTE. Detailed plans.

Mr. KITCHIN. Detailed plans.

The CHAIRMAN. We do not usually appropriate for a vessel the year that we authorize it, because it takes about a year to get up the plans and specifications and advertising.

Mr. MEYER. Mr. Secretary, is it not evident to your mind—it is to mine—that it was the purpose of Congress in qualifying that authorization that we should hear from the Department, so that we might further act upon it before the construction of that vessel was begun?

Attorney-General BONAPARTE. I did not so understand the purpose of Congress. I understood that they wanted to have an opportunity to act intelligently upon it if it was thought advisable. But of course I only judged from the outside, and it may be, if I had opportunities to judge from the inside, I would look at matters differently.

Mr. GREGG. If Congress wanted an opportunity of looking further into the matter would not that include the entire session of Congress, so that you would have no authority to act until they had adjourned without doing anything further?

Attorney-General BONAPARTE. As a matter of expediency, and perhaps of respect to Congress, it might have been wise to wait until the adjournment of Congress in March. But as a matter of fact, of strict law, under the terms of that authorization the Secretary of the Navy, I think, was authorized to advertise for bids just as soon as he had sent these general plans in. Of course it will be understood that he practically could not have done it—that is, he probably could

not have done it—because it would have been very unlikely that he could have had the detailed plans ready.

Mr. GREGG. If you think he had been authorized to act at once upon the return of these plans and specifications to Congress what purpose do you think Congress had in inserting this language in the law?

Attorney-General BONAPARTE. Of course an administrative officer ought not to speculate too much as to what the purpose of Congress was.

Mr. GREGG. Is not that always to be considered in the construing of any law?

Attorney-General BONAPARTE. If there is doubt as to the purpose of the law, then I suppose you may consider what you suppose to be its probable purpose. I understood its purpose to be—but this was judging merely from the nature of the law itself—that Congress wished to have an opportunity to see what type of ship the Department would construct under this authorization, and if Congress thought that it was a very injudicious kind of ship to build, then it could repeal the authorization and prevent the construction of a ship of that kind. That was the way I interpreted the law.

Mr. MEYER. As a matter of policy and consideration, would it not be best to defer any beginning of this construction until Congress will have had the opportunity to act in regard to it, and is it not true that that opportunity could best be afforded upon consideration of our naval appropriation bill? I have no doubt, Mr. Secretary, that it was in the minds of Congress to have some further consideration of it, and to have proper opportunities afforded; and as I remarked, that opportunity will be best afforded when we present our bill.

Attorney-General BONAPARTE. Of course that is a matter that addresses itself specially to the present Secretary of the Navy. I should hesitate to express any opinion on the subject under existing circumstances.

Mr. ROBERTS. Mr. Attorney-General, I would like to ask if the plans recommended provide for turbines or reciprocating engines?

Attorney-General BONAPARTE. They are adapted to either.

Mr. ROBERTS. Has the Department by submitting those plans made any decision as to what type of engines should be used?

Attorney-General BONAPARTE. No; it has not. The board which selected them expressed a preference for turbines.

Mr. ROBERTS. Pardon me, right there. Then the question of whether the ship will have reciprocating engines or turbines is still open?

Attorney-General BONAPARTE. That question is still open.

Mr. ROBERTS. Now, I would like to ask, Mr. Attorney-General, if there were any competitive plans from outsiders submitted?

Attorney-General BONAPARTE. There were.

Mr. ROBERTS. Who passed on the relative merits of the outside plans and the departmental plans?

Attorney-General BONAPARTE. There was a board appointed for that purpose, consisting of three members of the General Board, three members of the board of construction, and the Assistant Secretary of the Navy as chairman.

Mr. ROBERTS. Did you, as Secretary of the Navy, pass upon the question, or did you accept the report of the board?

Attorney-General BONAPARTE. I read the report with care before approving it.

Mr. ROBERTS. I know; but you did not change it at all, and you just accepted the report of the board?

Attorney-General BONAPARTE. I adopted their report.

Mr. ROBERTS. Was it called to your attention, Mr. Attorney-General, that if turbine engines are put into this ship we can get much more speed on the same displacement than you can with reciprocating engines?

Attorney-General BONAPARTE. That matter has been under discussion not only in connection with this vessel, but in connection with other vessels, for some time in the Department, and was very seriously discussed in connection with the proposals for the *South Carolina* and the *Michigan* when they were adopted. There is some difference of opinion on the subject. The majority of the board, possibly the whole of the board—I do not know whether there was any division of opinion in it—favored the use of turbines if it should prove, when the matter of detail came in, that they were practically the most advantageous.

Mr. ROBERTS. Did I understand you to say that turbines were decided upon for the *South Carolina* and the *Michigan*?

Attorney-General BONAPARTE. No, sir; they were not.

Mr. ROBERTS. Have we any naval vessels now under construction that are being equipped with turbines?

Attorney-General BONAPARTE. Yes; we have two scout cruisers.

Mr. ROBERTS. Any of the destroyers that are under construction?

Attorney-General BONAPARTE. Not that I am aware of.

Mr. ROBERTS. How far along are those scout cruisers?

Commander SIMS. About a year.

Mr. ROBERTS. So that we have not anything to go by in the vessels already constructed as to the turbines?

Attorney-General BONAPARTE. There are three scout cruisers under construction. One is fitted with reciprocating engines and one with turbines of the Curtis type and one with turbines of the Parsons type, and that arrangement was made largely to give a fair test of the different kinds of engines. There is an opinion entertained by a good many experts that there has not been a fair test yet of the relative merits of the engines, and it was thought that having three vessels that were substantially identical in all other respects, constructed with these three different types of engines, would give a very good opportunity for testing them.

Mr. ROBERTS. Do you know whether or not there were any experiments being carried on down at that steam engineering building at Annapolis, across the river, with regard to turbines?

Attorney-General BONAPARTE. That, of course, you could ascertain from the Bureau of Steam Engineering, but my impression is that some such experiments are in progress.

Mr. ROBERTS. Do you know what bearing that will have upon the construction of this big ship of last year?

Attorney-General BONAPARTE. I do not know how much, but it will have some.

Mr. ROBERTS. Are these experiments being conducted with the idea of determining whether there shall be turbines used in that ship?

C; all to be shaped accurately after drawings or templates and of such size and general character as may be required.

4. The armor above referred to is required for two battle ships. The general features of the armor for each battle ship will be as follows: A partial main or water-line belt 8 feet wide for about 325 feet amidships. This belt will be in three thicknesses, as follows: For a length of about 21 feet it will be 10 inches thick at the top and 8 inches thick at the bottom, uniformly tapered; for a length of about 152 feet it will be 11 inches thick at the top and 9 inches thick at the bottom, uniformly tapered; the remainder will be 12 inches thick at the top and 10 inches thick at the bottom, uniformly tapered.

An armored bulkhead 10 inches thick extending entirely across the ship at the forward end of the main belt and a triangular bulkhead 11 inches thick at the after end.

The casemate armor extends to the limits of the magazine spaces and ranges from the top of the water-line belt to a line about 8 feet above this. It will be 8 inches thick at the top and 10 inches thick at the bottom, uniformly tapered. The transverse bulkheads at the ends of the casemate will be 8 inches thick, extending from the sides of the ship to the barbettes.

Below the main deck the 12-inch barbettes are 8 inches thick, except those portions which are not within the athwartship casemate bulkheads, which will be 10 inches thick. Above the main deck the 12-inch barbettes are 10 inches thick, except for an arc of about 38 degrees on each barrette, which will be 8 inches thick.

The 12-inch turrets have a front plate 12 inches thick, rear and side plates 8 inches thick, and top plates 2½ inches thick.

The conning tower will be 12 inches thick. The conning-tower tube, 36 inches inside diameter, will be 6 inches thick below the main deck and 9 inches thick above the main deck.

The armor for the torpedo-directing station will be 5 inches thick.

There will be required for all of the above armor plates the necessary bolts and nuts for securing them in place and to one another, amounting to about 60 tons.

5. Deliveries of the above armor must commence as soon as practicable after the contract is awarded and shall continue thereafter at a rate of not less than 600 tons per month in the order given in a schedule to be furnished, subject, however, to such changes as may become necessary.

6. For further information concerning shapes and weights of the armor plates, the chemical, physical, and ballistic tests and requirements, and for all other particulars, apply to the Chief of the Bureau of Ordnance, Navy Department, Washington, D. C.

7. In making bids it is to be expressly understood that the amounts bid shall not include royalties to be paid for any process to be used, but in case the armor required can not be manufactured without the employment of a process for which royalty must be paid the amount of such royalty must be specified as a separate item.

8. The successful bidder shall use every endeavor and incur all necessary expense to furnish the very best armor of the several classes that can be produced at the time of manufacture, and the tests set forth in the specifications are to be regarded merely as minimum limits of quality which he is bound to excel, if practicable; and it shall be incumbent on him to make every effort during the course of its manufacture to improve the ballistic quality of the armor plate furnished. The suggestions, information, and requirements furnished are to be taken only as a guide to the desired end—the production of armor of the highest quality obtainable.

9. The time of commencing deliveries of armor and the rate at which they will be continued must be stated in the bids, and in awarding contracts due weight will be given to such bids as guarantee the earliest deliveries, the greatest deliveries per month, and to such as offer the highest ballistic test.

10. A schedule of the order of delivery will be furnished, subject, however, to such changes as the Department may find necessary. A penalty for non-delivery within the time stated by the successful bidders is provided for in the specifications.

11. Proposals must be in duplicate, sealed, and addressed to the Secretary of the Navy, Navy Department, Washington, D. C., the envelopes to be indorsed "Proposals for armor." They will be received at the Navy Department until 12 o'clock noon, Tuesday, July 10, 1906, at which time and place the opening of the bids will take place.

12. A separate price per ton must be stated for each class of armor bid upon and for the nickel steel bolts and nuts required. Tap bolts, rivets, butt straps, and similar accessories required in assembling armored structures, such as turrets, conning towers, etc., which are required to be set up at the works of the armor contractors, will be paid for at the price bid for bolts and nuts.

13. Ten per cent of the contract price will be retained from the payment of each article delivered until the lot to which it belongs shall have been completed.

14. The Department reserves the right to accept or reject any or all bids or parts of bids, or to waive informalities in bids, as are deemed to be the best interests of the Government.

15. Each proposal must be accompanied by a satisfactory certified check or bond, payable to the order of the Secretary of the Navy, in a sum equal to 5 per cent of the aggregate amount of such proposal, except in such case that 5 per cent of the aggregate amount of such proposal is equal to or exceeds \$50,000, when said check or bond shall be for such amount of \$50,000, which check or bond shall become the property of the United States in case the successful bidder shall fail to enter into the requisite contract and to furnish the requisite security on the acceptance of his proposal. All checks or bonds of bidders whose proposal shall not be accepted will, on the award of the contract, be returned to them. The check or bond of each successful bidder will be returned to him when his contract shall have been duly entered into and the requisite security furnished.

16. Each successful bidder will be required, within thirty days after the acceptance of his proposal, to enter into a formal contract for the faithful performance of the work, and to give a satisfactory bond for such performance in a penal sum equal to 10 per cent of the amount of his bid.

17. The necessary blank forms of proposal will be furnished by the Department upon application to the Chief of the Bureau of Ordnance, Navy Department, Washington, D. C.

18. The ballistic test is the most important test to which the armor will be subjected, and for this the present custom of the Department will be followed of dividing the armor into groups of, approximately, 400 tons each, and of selecting from each group a plate to represent the same ballistically, such selection not to be made until all the plates of a group are sufficiently far advanced in manufacture to insure evenness in quality of all the plates composing it. If the test plate should fail to pass the required test, the contractor may demand that another plate from the same group shall be selected by the Department and submitted to test. Should the second plate fail to pass, the group shall be rejected, unless for good reasons the Department considers it desirable to continue the test or to permit a retreatment of the whole group or a designated part thereof, after which the ballistic test shall commence anew. If the second plate successfully passes the test, the group may, at the discretion of the Department, be accepted, but if the Department so desires, it may select another plate (third) from the group, and on the performance of this plate the acceptance or rejection of the group will definitely rest.

CHARLES J. BONAPARTE,
Secretary.

Approved May 21, 1906.

(Changes authorized by Department's indorsement No. 273-23 of June 14, 1906.)

CIRCULAR AND SPECIFICATIONS OF THE NAVY DEPARTMENT CONCERNING ARMOR PLATE AND APPURTENANCES FOR VESSELS OF THE UNITED STATES NAVY.

1. This circular, which is to accompany the contract dated ———, 1906, by and between the ——— and the United States, for nickel-steel armor plate and appurtenances, shall be deemed and taken as forming part of said contract, with the like operation and effect as if the same were incorporated therein.

2. The armor defined in said contract and in these specifications shall, for the purpose of distinction, be classed as follows:

Class A, consisting of armor plates having a thickness greater than 5 inches, to be manufactured and face-hardened by the best and most improved process, to be satisfactory to the Bureau of Ordnance.

Class B, consisting of armor plates having a thickness of 5 inches or less, to be manufactured and face-hardened by a process satisfactory to the Bureau of Ordnance.

Class C, consisting of thin plates and hollow forgings, such as turret tops, doors, communication and ammunition tubes, to be tempered and annealed, but not face-hardened. Class C armor is not subject to ballistic test.

Class D, consisting of armor bolts and nuts.

3. The vessels which it is proposed to supply with armor are as follows: The battle ships *Michigan* and *South Carolina*, authorized by act of Congress approved March 3, 1905, but at the discretion of the Navy Department any of the armor supplied may be assigned to other vessels.

4. The total quantity of armor plate required for the above-named vessels is estimated to be about 7,328 tons, and about 60 tons of bolts and nuts.

5. The quantity of each class of armor required for each of the vessels referred to above is estimated as follows:

Vessel.	Class A.	Class B.	Class C.	Class D.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.
South Carolina	3,512	5	147	30	3,694
Michigan	3,512	5	147	30	3,694
Total	7,024	10	294	60	7,388

6. The above, however, is subject to changes which may be made under the third clause of the contract for said armor, or which may become necessary on account of authorized changes in the armor plans of the vessels referred to above.

7. A detailed schedule of the plates and detailed drawings showing the shape and dimensions of each plate will be furnished by the Department.

8. The general features of all the armor required and to be supplied under this contract are similar in character to that usually required for armored vessels of the kind herein referred to, respectively, presenting no unusual difficulties of manufacture.

9. In the manufacture of the above-mentioned armor the party of the first part shall use every endeavor and incur all necessary expenses to furnish the very best armor of the respective classes that can be produced at the time of manufacture, and the tests set forth in these specifications are to be regarded merely as minimum limits of quality, which he is bound to exceed, if practicable, and it shall be incumbent upon him to make every effort during the course of its manufacture to improve the ballistic qualities of the armor plate furnished. The suggestions, information, and requirements herein are to be taken only as a guide to the desired end—the production of armor of the highest quality obtainable.

GENERAL REQUIREMENTS.

10. All armor plates delivered under this contract must be of domestic manufacture of the best quality of material, free from such defects as would diminish their ballistic resistance or value, and of fair service.

11. They shall be of the best workmanship, and shall be of the approximate lengths, widths, and thicknesses shown on the general arrangement plans of armor for the vessels designated, which plans shall be deemed and taken as forming part of the contract, and no change shall be permitted in the dimensions given on the detail plans except by approval of the Bureau of Ordnance, and in the manner indicated in paragraphs 15 and 16 below. They shall be finally completed to the shapes and dimensions shown on the detail drawings furnished or to the templates supplied by the shipbuilders; the shape and dimensions, however, being subject to the tolerances hereinafter stated.

12. The contractor shall drill and thread all bolt holes which are used for securing the plates in position. The detail drawings will show the number, position, and direction of these holes, and the contractor shall not be required to drill and tap holes for armor bolts other than those shown in the detailed drawings without increased compensation. He shall also drill and thread such holes as are intended for lifting the plates in handling, and shall furnish screw plugs for closing such holes.

13. The contractor shall not be required to drill holes used for structural purposes—i. e., attaching other parts of ship to armor—except for extra compensation, but shall drill such holes as may be necessary for assembling complete structures at his works.

14. It is understood that as few holes as possible will be put in the outer face of plates to be face hardened, and that the contractor will not be held responsible for the condition, shape, and exact position of these holes after treatment and hardening, nor for the local cracking of plates in bending and hardening, evidently due to the presence of these holes. The contractor must, however, make all reasonable effort and take proper precautions to do the work with a view of obtaining the desired results. Where holes for gun ports, scuppers, ash chutes, manholes, etc., are to be cut through the hard face of plates, or where there is an offset in the edges of such plates, they will be given a minimum radius of 1 inch at the corners.

15. The required machine work will be indicated on the detail drawings first furnished the contractor, which will be that necessary to shape and fully adjust and secure the armor in place, and to cut such sighting, lookout, and port holes, doors, scuppers, ash chutes, manholes, etc., as are shown on the drawing. If other machine work is required the contractor must do this work for extra compensation.

In case the shape of plates as shown on the detail drawings furnished to the manufacturers is subsequently changed so as to materially increase or decrease the cost of manufacture, they shall receive an additional or a diminished compensation for said work as the case may be.

16. In all cases where there may be a question of increased or diminished compensation that can not be adjusted by mutual agreement between the Bureau of Ordnance and the contractor, the subject shall be referred to a board appointed by the Department, as provided in the contract, and the decision of said board, or of a majority thereof, shall be final, subject only to an appeal to the Secretary of the Navy.

17. The exterior and interior faces of all armor plates and shapes may be finished by the forge or rolls, but they must be reasonably smooth and free from great or extended irregularities, tears, cracks, or spills. Plates are to be cleaned of scale, clinder, etc., before reforging (if such process is used) to such an extent as will permit a thorough inspection for surface defects, and, before shipment, will be cleaned to such an extent as will admit of the application of a thoroughly adherent coat of metallic paint or cement, and all bolt holes shall be packed with waste soaked in white lead and tallow or protected by other suitable means.

HOLLOW ARMOR FORGINGS.

18. In cases where communication tubes, ammunition tubes, sighting hoods, etc., are designed as hollow forgings they may be made from punched or bored nickel-steel ingots, and the walls of the ingots at all points shall be reduced in thickness, by forging, at least 40 per cent, except in special cases where the size of the forging renders it desirable to require less reduction, which point shall be decided by the Bureau of Ordnance.

19. Unless otherwise indicated on the detail drawings, no greater finish will be required than on other armor. The surface may be left as it comes from the forge, but the forging must be carefully done and leave a fair surface, which must be cleaned before shipment.

20. These forgings will be divided into two classes:

First. Those which are drawn on a mandrel.

For acceptance as to physical qualities, two specimens, $\frac{1}{2}$ inch in diameter and 2 inches between measuring points, shall be taken from each end of each forging of this class after final treatment, one longitudinally and one transversely. The longitudinal specimens shall show not less than 90,000 pounds tensile strength per square inch and 20 per cent elongation in 2 inches. The transverse specimens shall show not less than 90,000 pounds tensile strength and 15 per cent elongation.

Second. Those which are enlarged on a bar.

From each end of each forging of this class, after final treatment, two specimens shall be taken transversely, and must show not less than 90,000 pounds tensile strength per square inch and 18 per cent elongation in 2 inches.

21. Rolled or forged plates of Class C armor shall have in a longitudinal specimen a tensile strength of not less than 90,000 pounds per square inch with an elongation of 20 per cent in 2 inches.

TOLERANCES AND DIMENSIONS.

22. Following are the tolerances that will be allowed in the dimensions of face-hardened armor: In length, less, 0.5 inch; more, 0.5 inch. In width, less, 0.5 inch; more, 0.125 inch. In thickness, less, 0.25 inch; more, 0.25 inch.

The tolerance in curvature for side belt and casemate armor shall be such as not to exceed a variation of three-fourths inch, plus or minus, for every 10 feet of the projected length or width of the plate, and $\frac{1}{4}$ inch for every 36 inches of the projected length or breadth in any part thereof.

For curved structures, as barbettes, turrets, etc., the tolerance in curvature shall be such as not to exceed a variation of $\frac{1}{4}$ inch, plus or minus, for every 10 feet of the length or width of the plate, and $\frac{1}{4}$ inch for every 36 inches in length or breadth in any part thereof.

23. In hollow nickel-steel armor of Class C, when machined, a variation of $\frac{1}{4}$ inch on a side, inside and outside, will be allowed; the tolerance in length will be ± 0.375 inch.

24. Heavy hollow forgings need not be machined if their dimensions as forged fall within the following tolerances: Thickness of wall ± 0.5 inch, so distributed that, while either inside or outside radius may vary 0.5 inch, the sum of the variations of both radii shall not exceed 0.5 inch; for elliptical forgings a tolerance of ± 0.75 inch will be allowed in the radius of curvature.

25. In every case, however, a decrease in length or width of one plate must be made up by an excess of length or width elsewhere in order to insure the full bearing of all butts and joints without the use of liners.

26. Turrets and all other complete armor structures shall be set up at the contractor's works and inspected for shape, dimensions, and closeness of joints at as early a date as possible after treatment is finished. In these structures a tolerance of $\frac{1}{4}$ inch, more or less, will be allowed on the radius.

27. Side and casemate armor plates must be set up in lots of not less than five by the armor contractor and inspected for closeness of joints and for shape as referred to general datum plans. The tolerances allowed in the dimensions of individual plates must be so distributed that at no point in the completed structure shall their accumulation result in a variation from the dimensions furnished on the general datum plans by more than the following amounts: In length, less, 1.5 inches; more, 1.5 inches; in width, less, 0.5 inch; more 0.125 inch. One plate from each lot shall be held to be erected with the next lot to insure close joints and fair surfaces between lots.

28. Immediately after each lot of armor has been set up the armor contractor must make a plan showing such armor as set up, with suitable check marks on the armor and on the plan, to facilitate setting the armor up in place on the ship, and five copies of this plan must be sent to the Bureau of Ordnance for use at the shipyard where the vessel is being built.

29. The ports and sight and lookout holes in turrets and other port plates are to be properly fashioned, so as to conform to the drawings. A tolerance of $\frac{1}{4}$ inch will be allowed in either dimension, length or breadth, of porthole.

30. In the case of face-hardened armor, when irregular distortions may at times exceed those prescribed, the Department will exercise its discretion, according to circumstances and the condition of the plate or plates under consideration, and may allow greater tolerances or allow a further rectification or treatment. In all cases, however, firm and close joints between adjacent plates will be required.

RECTIFYING CURVATURE.

31. When it is necessary to correct the curvature or rectify plates by bending after final treatment and testing, they may be heated to a temperature which will enable rectification, but not higher than 100° F. less than that of the last annealing. The hardness of the face must not, however, be impaired.

TEMPLATES AND MODELS.

32. In case templates or models of armor plates are required by the contractor, he will so state promptly after the receipt of the detail drawings of such plates, and these templates or models will then be furnished, unless the Department considers them unnecessary. With the templates or models will be furnished drawings corresponding thereto, and after verification under the supervision of the Inspector at the works of the contractor these verified templates or models will be followed in the manufacture in shaping the plates they represent. In case of differences existing between the templates and the drawings thereof the drawings shall govern. In order to check the shape of templates or models their outer edges shall be in a plane, in order that their correctness may be readily determined.

MANUFACTURE AND CHEMICAL ANALYSIS.

33. All the plates of each class of armor in every group should be of the same quality, and, therefore, the steel used for their manufacture must be prepared from the same materials and by the same process. The plates must be cast, pressed, rolled, bent, cemented, tempered, and face-hardened according to the best methods, under similar conditions, and the whole method of manufacture must be practically identical for all the plates of the same class in each group.

34. The chemical composition of all armor shall be such as will produce plates of the most resisting quality.

35. All raw material shall be chemically analyzed in the most approved manner by the contractor before use, and proper records thereof and proper melting records shall be kept by him. The product shall be uniform and shall be manufactured by the open-hearth process.

36. The ingot to be used in the manufacture of armor plates shall be so proportioned that it will produce the best result, and its weight shall be not less than one and two-thirds times the combined weight of all the trimmed and finished plate made therefrom, and a discard of not less than 25 per cent shall be made from the upper end. In estimating for the observance of this rule the calculated weights of the finished plates shall be used.

37. The ingot shall be forged or rolled as much as the best practice requires, but the ratio between the mean cross section of the ingot and that of the trimmed and finished plates shall not be less than two and one-half, except in special cases of very large plates, when less reduction may be allowed.

During the process of reduction no metal shall be cut off, except such as will clearly have no further beneficial effect on the working of the metal which is to compose the finished plate.

38. Whatever method may be adopted for producing the ingot the part used must be equal in quality and in all other respects to an ingot cast in the usual way, from which at least 25 per cent by weight has been discarded from the upper end. In the manufacture of hollow armor forgings, if fluid-compressed ingots are used, a discard of not less than 10 per cent of the weight of the ingot shall be made from the upper end.

39. Ingots must be free from imperfections that would injuriously affect the finished plate.

40. At least one chemical analysis shall be made, by and at the expense of the contractor, from each plate or forging. This analysis may be made from trimmings taken from physical-test specimens to be cut from the plate before hardening.

41. If more than one plate is made from an ingot, an analysis shall be made from a specimen cut from the upper end of the uppermost plate, with reference to its position in the ingot, and the second analysis shall be made from a specimen cut from the lower end of the lowermost plate. An additional analysis may also be taken from time to time from the central region of such plates.

42. In face-hardened plates, an additional analysis for carbon shall be made from drillings taken from the treated surface at each end of each plate in such manner as to determine the amount of the carbonization, at depth of $\frac{1}{8}$ inch, $\frac{1}{2}$ inch, and 1 inch.

43. All plates of a ballistic group shall be treated to produce as far as possible uniform results.

44. All material not face hardened shall be tempered and annealed, and all plates of the same material as Class A armor, but noncemented, shall show in a longitudinal specimen a tensile strength not less than 80,000 pounds per square inch with an elongation of 15 per cent in 2 inches.

TESTS FOR UNIFORMITY.

45. After the plates have been subjected to all the treatment they are to receive, tests will be made from them for the purpose of exhibiting relative quality. For this purpose the character of the metal in the plates at ends will be compared and two specimens may be taken from points indicated by the inspector where results representative of the comparative quality of the plates will be obtained. In the case of plates to be face hardened, these tests shall be taken after carbonization, reforming (if such process is used), tempering, and annealing, and before hardening.

In all cases where test specimens are cut from plates to be face hardened, after carbonization and reforming, they shall be located well in from the sur-

face in order that the elongation and strength may not be affected by an accidental carbonization or decarbonization of the surface metal.

46. The hardened surface of all face-hardened plates shall be carefully examined after tempering, to detect any lack of uniformity in the hardness. For this purpose center punches, files, or hammer and chisel, or similar means, shall be employed, and any marked departure from the desired uniformity shall be remedied by additional treatment.

47. Minor cracks, tears, or spalls in the hardened face of plates that are characteristic of the process by which they are manufactured will not necessarily be considered defects if not of such a character as to affect the ballistic quality of the plates, but the Department may, at its discretion, reject for installation on board ship such individual plates as show such excessive and extended cracks, tears, or spalls as materially detract from the appearance and seeming effectiveness of the plate as a structural and defensive part of the ship. The final decision as to what constitutes such excessive and extended cracks, tears, or spalls shall rest with the Department.

48. When any plate is rejected for installation on board ship in accordance with the above paragraphs, such plate shall be selected to represent its group in ballistic test if, in the opinion of the Department, it is fairly representative of such group in quality and treatment.

BALLISTIC TESTS FOR ARMOR.

49. The ballistic test is the chief one, and the object of all the other tests of plates is to insure, so far as possible, that the remaining plates of a group are capable of standing as severe a test as that to which the test plate has been subjected; and the uniformity required among the plates of a group will be only such as may be necessary for this purpose. The plates from each group intended for the ballistic test will be selected by the Department, after all the plates of the group which are subject to ballistic test have received their final treatment and passed satisfactory tests for uniformity. Plates having gun ports, torpedo ports, or door holes, and face hardened, to be excluded from ballistic test after the ports or holes are cut.

50. The Department may, however, in its discretion, direct the manufacture of a special plate as to dimensions to be carried through the various stages of manufacture and physical test with certain service plates, and if the chemical and physical tests and treatment of this plate are satisfactory, and compare favorably in uniformity with the designated service plates, after all the latter have been completely treated and tested, it will be selected as the ballistic plate to represent the group of service plates. The ends must be tried.

51. In case of the selection of a special ballistic plate or of any service plate before it is completely machined, deductions from the contract price for non-machining of edges shall be made at the rate of \$14.20 per square foot of unmachined edge, and the charge for the amount of metal thus retained, equal to the difference between the actual and estimated weight of plate, shall be paid for at three-quarters of a cent ($\frac{3}{4}$ c.) per pound.

52. Persons not connected with the Navy Department of the United States or with the contractors making the plates shall not be allowed to be present at ballistic tests except by consent of the Bureau of Ordnance and the contractors.

53. The bolt holes in the ballistic-test plate will be arranged, when practicable, in the same manner as for fastening a similar plate to the vessel's side.

54. After the test plate has been received at destination the Department will proceed with the tests as soon as practicable, and work on the group may be suspended (if the contractor so desires) until the result of the test is announced.

55. The ballistic test will be at the expense of the Department unless otherwise provided in special cases.

56. Ballistic plates will be bolted to a backing of 6 inches of oak and one $\frac{5}{8}$ -inch ship plate. The backing, including oak and plate and studs for holding in bolts, must be furnished, fitted, and secured by the contractor, but the Department will defray the actual expenses thereof. If the plate is tapered or otherwise intentionally varied in thickness the backing will be maintained of full depth behind the thickest part. The whole structure will be braced from the rear and the bolts will be of the same kind as are to be used on shipboard.

57. When the proposed point of impact falls upon the tapered part of the test plate, the thickness for which the velocity is to be calculated shall be measured at the thinnest point on the circumference of a circle described around the proposed point of impact, with a radius equal to the semidiameter of the shot.

58. The rules regarding positions of the points of proposed impact are intended as aids in conducting the test with regularity. The guns will be aimed for these points, but no allowance will be made for the ordinary errors inherent to artillery fire.

59. The actual thickness of the plate shall be used in determining the velocity to be employed, but differences of level of the surface at the point of impact caused by imperfections of workmanship shall not accrue to the advantage of the contractor in measuring the thickness of plates.

60. The ballistic test for acceptance of armor shall be made as strictly as practicable in accordance with the following tables, the Department reserving the right to use guns of other calibers than designated for any plate, if it is deemed advisable.

In the test of armor of Class A there shall be three impacts, with striking velocities, as given in the following table, capped armor-piercing projectiles being used:

Wt. of shell capped.	Caliber of gun.	Thickness of plate.	Striking velocity.
<i>Pounds.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Foot-seconds.</i>
105	6	5	1,451
105	6	6	1,648
105	6	7	1,836
165	7	6	1,464
165	7	7	1,631
165	7	8	1,791
260	8	7	1,459
260	8	8	1,603
260	8	9	1,741
510	10	9	1,458
510	10	10	1,568
510	10	11	1,676
870	12	11	1,424
870	12	12	1,514

The first impact shall be located near the central portion of the plate, and the other two impacts shall be located as directed by the Bureau; no impact, however, to be nearer another impact or an edge of the plate than $3\frac{1}{2}$ calibers of the projectile used.

On these three impacts no projectile or fragment thereof shall get entirely through the plate and backing, nor shall any through crack develop to an edge of the plate or to another impact.

In the test of armor of Class B there shall be three impacts, with striking velocities, as given in the following table, capped armor-piercing projectiles being used:

Wt. of shell capped.	Caliber of gun.	Thickness of plate.	Striking velocity.
<i>Pounds.</i>	<i>Inches.</i>	<i>Inches.</i>	<i>Foot-seconds.</i>
33	4	3.5	1,330
33	4	4	1,460
33	4	5	1,707
50	5	4	1,403
50	5	5	1,639
60	5	4	1,281
60	5	5	1,497

The first impact shall be located near the central portion of the plate, and on this impact no portion of the projectile shall get entirely through the plate and backing, nor shall any through crack develop to an edge of the plate.

There shall be two other impacts, located as may be directed by the Bureau, no impact, however, to be nearer another impact or an edge of the plate than $3\frac{1}{2}$ calibers of the projectile used. On these impacts no shell or fragment thereof shall get entirely through the plate and backing.

The above tables are based on the De Marre formula for the perforation of homogeneous nickel steel:

$$V = [3.00945] \frac{d^{0.75} e^{0.7}}{p^{0.5}}, \text{ in which}$$

V = the striking velocity in foot-seconds:

d = the caliber of the gun in inches;

e = the thickness of the plate in inches, and

p = the weight of the projectile in pounds.

To the velocity thus found in any case, there shall be added 23 per cent when a 6-inch gun is used, 22 per cent when a 7-inch gun is used, 24 per cent when an 8-inch gun is used, 23 per cent when a 10-inch gun is used, and 19 per cent when a 12-inch gun is used, and the velocity thus increased is to be the striking velocity used against armor of Class A.

In the test of armor of Class B the striking velocities shall be 10 per centum greater than those determined by the De Marre formula for plates of even thickness.

For plates having a thickness not shown in the tables the striking velocity shall be determined by interpolation, the Bureau to decide whether the caliber of gun next greater or next smaller shall be used.

61. In ballistic tests the projectile shall be fired through screens to determine its velocity when practicable.

62. Capped projectiles of service type in use at date of this contract shall be used in the ballistic tests of armor. If a new and improved type of armor-piercing projectile should be adopted for service use after the date of signing this contract, such modifications of the striking velocities will be made by mutual consent as shall appear fair and reasonable.

63. Every practicable effort will be made to so load the gun used that the desired velocity will be secured, but this velocity can not be guaranteed by the Government. Due consideration and allowance will be made for any untoward result plainly due to this cause.

64. No plate which does not represent a ballistic group will be tested under the contract, except as hereinafter provided for.

65. Firing at a plate will be stopped whenever, in the opinion of the Inspector, the plate has demonstrated its incapacity to stand the full test.

66. If the first test plate is successful, the group it represents shall be accepted as far as the ballistic test is concerned, provided the plates of the group have shown a close uniformity in quality and treatment.

67. When the Department has reason to believe that there is a lack of uniformity in a group, or that defective plates are contained therein, if the first plate subjected to ballistic test passes, the Department may test two more plates before giving a decision as to the acceptance of the group; if both of these plates pass, the group shall be accepted; if one or both of these plates fail, the acceptance of the group shall be at the discretion of the Department.

68. If the test plate should fail to pass, the contractor may demand that another plate of the same group shall be selected by the Department and submitted to test. Should the second plate fail to pass, the group shall be rejected, unless for good reasons the Department considers it desirable to continue the test or to permit a re-treatment of the whole group, or a designated part thereof, after which the ballistic test shall commence anew.

If this second plate successfully passes the test, the group may, at the discretion of the Department, be accepted; but if the Department so desires it may select another plate (third) from the group, and on this test the acceptance or rejection of the group will definitely rest.

69. Such plates as successfully endure a ballistic test will be paid for by the Department at the contract price, provided the group to which they belong is accepted; not otherwise.

If unsuccessful, or if the group to which they belong is not accepted, they will not be paid for, and they will be removed from Government ground at the contractor's expense. If not removed within three months from notification they will become the property of the Government.

70. In case of rejection the contractor must replace the group within a reasonable time.

71. When, under the preceding paragraphs, ballistic-test plates are paid for the transportation charges will also be paid by the Government; when the

ballistic plates are not paid for the charges for transportation will lie against the armor maker.

72. Plates to replace test plates shall be received or rejected on the judgment of the Department upon their chemical and physical tests, which must be practically uniform with similar tests from the plates of the group; but if such plates are rejected because of supposed lack of effective ballistic resistance, the contractors may demand that they be tested ballistically, and if they pass that test they will be paid for at the contract price, subject to the rebate provided for.

73. The success of the test plates defines the status of the group in a ballistic sense, but does not secure the individual plates from condemnation for causes which seriously impair their resistance, or which are referred to herein as objectionable.

TEST FOR BRITTLINESS OR CRACKS.

74. Plates not much curved may be dropped on a suitable iron plate from a height of one yard in order to test for brittleness and to develop cracks or spalls.

REPLACING REJECTED PLATES.

75. Plates that develop defects after delivery sufficient to cause rejection or that show cracks, due to faulty manufacture, within six months after being fastened on the ship, must be replaced by the contractor without delay.

The plates to replace rejected ones may be accepted or rejected, as provided for in the case of test plates in paragraph 72.

THE DEPARTMENT'S AUTHORITY AS TO TESTS, ETC.

76. Except as otherwise provided herein, the number of plates to be tested, their behavior under test, the place at which the test shall take place, the positions at which specimens for physical, chemical, and other tests shall be taken, the precise nature and number of these, the results of all tests, and the weight of all plates and other objects shall be determined by the Department, whose decisions on all questions shall be final, and whose construction of all the terms of a contract shall prevail, subject to appeal as provided for in the contract.

77. The Department may waive any tests that it pleases, and may dispense with the cutting of pieces, bars, and samples for such tests, the proper rebate being allowed by the contractor.

INSPECTION.

78. The Government shall have the right to keep inspectors at the works of the contractor. The inspectors shall, except as hereinafter provided, have full access to all parts thereof where work for the Government under this contract is being carried on; they shall be permitted to examine freely the raw material and witness all the processes of manufacture and to examine the contractor's records with reference to such matters; provided, that such processes in the manufacture of armor as are of a confidential nature need not be revealed to any but commissioned officers of the United States Navy.

79. A written statement of work and the contractor's tests to be commenced and in progress each day must be furnished to the chief inspector at such times as will allow him to witness the various treatments should he so desire, but after such notice has been given no process of manufacture need be delayed owing to the absence of the inspector.

80. All information and reports, written or verbal, concerning material, tests, processes, etc., and all assistance that the inspectors may require from the contractor or his agents and workmen shall be rendered free of cost to the Department.

81. The inspectors will be supplied with suitable office room at the works, and with such plain office furniture as may be necessary to the transaction of their business, free of cost to the Department.

82. If the chief inspector present considers that any of the work is not in accordance with the contract, he will so inform the contractor at once, and immediately thereafter give his reasons for so doing, in writing, both to the Department and the contractor. Any work done by the contractor on the material in question, after the verbal notification, shall be at his own risk.

83. All information given to the Department or its inspectors regarding the manufacture of armor or other material shall be considered confidential.

84. All test pieces, bars, and samples for official test are to be stamped and identified by the inspector previous to being cut out; the inspector will have the custody of all test specimens in course of preparation or ready for test, and the testing shall be made under the supervision of an inspector. The inspector may himself make the tests should he so desire, and the contractor is to afford him the necessary facilities and assistance for so doing.

85. Except as herein otherwise provided, all tests, measurements, etc., shall be made at the expense of the contractor, under the observation and supervision of the inspectors, and with the contractor's gauges and instruments. The inspector has the right to verify all testing and gauging instruments at any time.

86. The contractor shall give the inspector two copies of the results of tests, in such form as may be approved by the Department, immediately after the tests are made.

87. The chemical and physical tests will be made at the works of the contractor, or elsewhere, as the Department may desire. In the latter case the specimens will be delivered by the contractor f. o. b. cars. The contractor shall provide a testing machine of pattern and design approved by the Department, and of power sufficient to safely exhibit a strain of 100,000 pounds.

88. Inspections shall be made at any time or times that the inspectors shall see fit, and without notice being given.

89. The obligation is upon the contractor to satisfy the inspector as to the correctness of everything, and its accordance with the terms of the contract.

90. The Chief of Bureau of Ordnance, through the inspectors, will decide, in the first instance, as to the results of all official tests, but if he is in doubt he may refer the matter to the Department.

91. The contractor shall state for each article, in writing, if required by the Bureau, the exact treatment it has received.

92. In case the results obtained from the first treatment are not satisfactory, and the contractor is of the opinion that the quality of the metal will be improved by re-treatment, he may re-treat and submit additional specimens.

MISCELLANEOUS.

93. Accepted and test plates, with bolts and other objects, must be delivered f. o. b. a convenient transportation line (to be approved by the Department) that runs from the town in which the contractor's works are situated.

94. The contractor must arrange for the transportation of plates, bolts, and other objects from his works to the points designated by the Department, and must make every effort to have them forwarded promptly. The Department, however, may make special arrangements as to transportation in certain cases.

95. Models and templates furnished by the Government will be delivered to the contractor on cars or boat near his works.

96. If any objects, operations, machines, or methods employed by the contractor in the work herein referred to are protected by caveats, patents, or otherwise, the contractor is to save the Department harmless against all claims of patentees or others in the premises except as is provided for in the contract.

97. The Department may use other forms of test specimens than those heretofore specified, and if they are more expensive than those described, their cost must be equitably settled by agreement before they are commenced; if, however, they are less expensive, a proper rebate must be allowed by the contractor.

PROVISIONAL ACCEPTANCE AND DELIVERY.

98. After the plates or other armor have passed all tests and have been machine-finished and fitted (if belonging to structures) they shall be examined for provisional acceptance. The records and facts as to their composition and treatment and all other matters affecting them will be considered. They must conform to the requirements in all particulars, and must meet all inquiry and test successfully in order to be provisionally accepted.

99. Material which has been provisionally accepted will be delivered without undue delay. Material will be paid for when delivered f. o. b. at the contractor's works, unless the Department designates other times for its delivery, in which case it will be paid for when provisionally accepted. Plates

which have been erected and provisionally accepted, but which, under paragraph 27, are required to be held to be erected with the next lot, shall be considered as having been designated by the Department for later delivery, in which case they will be paid for when provisionally accepted, though not delivered. The weight paid for shall be the scale weight as obtained by the inspector when the material is provisionally accepted.

If, however, the Department shall deem it advisable in certain cases to waive excess in dimensions over the tolerances allowed, the weight of such material to be paid for shall be the calculated weight made from the finished dimensions as given on the drawings.

100. A successful ballistic test plate will be paid for when it has passed the test, except as provided in paragraph 69. The weight of a ballistic plate to be paid for shall be the weight of the finished service plate it represents as determined under the provisions of paragraph 99. If by mutual agreement a ballistic plate is presented of dimensions not similar to those of any service plate of the ballistic group, the weight paid for shall be the calculated weight made from the dimensions given on the drawing of the ballistic plate agreed upon.

101. Whenever calculations are made to determine the weight of material, the weight of a cubic inch of nickel steel shall be taken as 0.284 of a pound, and the weight of a cubic inch of simple steel as 0.2833 of a pound.

BOLTS AND NUTS.

102. A number of nickel-steel armor bolts and nuts will be needed. These bolts and nuts are to be made and threaded, of dimensions, and in numbers, shown on the drawings to be furnished the contractor, or as stated by the Department.

103. The bolts may be unfinished on the reduced part of the shank and on the upper or outer flat of the head.

They must be in other respects accurate in form, well made, of proper sizes, and in accordance with the drawings.

104. The nuts can be unfinished on the upper or outer flat. They must be to size and be finished on the friction face. All threads to be carefully made and verified by the templates or patterns. An eccentricity not exceeding $\frac{1}{16}$ inch will be allowed in the bolt holes in all nuts.

105. The outer threaded ends of the bolts must fit closely into the threaded holes in the armor plates. The following variations below the standard will be allowed: Diameter of shank, $\pm \frac{1}{64}$ of an inch; length, $\pm \frac{1}{32}$ of an inch; fit of thread in plate, close; fit of nut on inner head, close.

106. The contractor must furnish a sufficient number of pattern-threaded bolt ends and nuts to be used in verifying the supply of bolts and nuts for vessels.

107. Both the bolts and nuts will be of the best quality of nickel steel, tempered and then annealed, to contain about 3.25 per cent nickel.

108. The bolts shall be tested as follows: Two specimens shall be taken from the bolts manufactured from each heat. If more than one hundred bolts are made from a single heat, the inspector shall select two bolts for test after forging and final treatment. If less than one hundred bolts are made from a single heat, the inspector shall select one bolt from which the two specimens shall be taken. The specimens shall be taken longitudinally, and for acceptance shall show not less than 80,000 pounds tensile strength and 27 per cent elongation in 2 inches.

109. The bolts of a heat to be presented for test shall be treated together and receive their final annealing in the same furnace charge, as far as practicable.

110. Nuts shall be treated and tested by heats in the same way as bolts, except that the two specimens shall be taken in the direction of the height of the nut, and shall show for acceptance not less than 80,000 pounds tensile strength and 17 per cent elongation in 2 inches.

111. The bolts and nuts shall have their machined surfaces coated with white lead and tallow, and they shall be suitably packed for shipment.

SMALL STEEL BOLTS.

112. A number of small steel bolts may be required for securing such armor as has no wooden backing. They will be of the type and dimensions shown on the drawings, and will be subject to the same test and requirements as the

other bolts. They must be machined with proper care. Where small bolts and tap rivets are ordered of sizes smaller than the regular armor bolts, the thread used shall be the regular United States standard. Where through rivet holes are required they should be $\frac{1}{16}$ inch larger in diameter than the rivets intended to be used.

TYPES OF BOLTS.

113. The bolts will be of the types adopted by the Department for the different classes and thickness of armor, subject to such modifications and changes in special cases as may be found necessary.

But if such changes cause additional or diminished expense to the contractor he shall receive increased or diminished compensation, the amount in either case to be determined as provided for in paragraph 16.

GROUPS.

114. For ballistic purposes Class A armor will be divided into groups of from 400 to 600 tons, as may be determined by the Department from time to time. The ballistic groups of Class B armor will be arranged by the Department.

The dimensions and weights given on the drawings and in the tables are only approximate, and are subject to change as the Department may find necessary.

DELIVERY.

115. The order of delivery will be as prescribed by the Department. The rate of delivery must be at least 600 tons a month: *Provided*, That at least nine months prior to the required date of delivery of each lot of armor, the contractor is furnished with preliminary drawings sufficient to enable him to forge and rough shape such armor, and *provided further*, that he be furnished with the final detail drawings of each lot of armor at least six months prior to the required date of its delivery.

The Department may change the order of delivery from time to time as may be found necessary, but if, owing to previous progress of manufacture, such changes are to the disadvantage of the contractor in meeting contract deliveries or otherwise, an equitable adjustment shall be made.

If deliveries of armor are due under previous contract or contracts, deliveries of armor under such contract or contracts shall be included in computing deliveries under this contract.

PENALTY FOR DELAY.

116. At the end of each six calendar months the total amount of armor delivered shall be reckoned, and if this amount is less than is due at this time, reckoning at the rate of 600 tons per month, a penalty of ten dollars (\$10) per ton on all armor thus due and not delivered shall be charged against the contractor.

117. No penalty shall accrue against the contractor for delay in delivery caused by the Department or its agents.

118. In computing the term upon which to charge penalty, a month shall be taken as a period of thirty days; the date upon which delivery is due shall be counted, but the date when delivery is made shall not be counted. The time elapsing between the delivery of a plate for ballistic tests *f. o. b.*, in case the test is to be made at a Government proving ground, and the date of receipt of notification of the acceptance of the ballistic group on the results of the test, shall not be counted in the term for penalty of any of the armor contained in the ballistic group.

BUREAU OF ORDNANCE, NAVY DEPARTMENT,
Washington, D. C., May 18, 1906.

Respectfully submitted.

N. E. MASON,
Chief of Bureau of Ordnance.

NAVY DEPARTMENT,
Washington, D. C., May 21, 1906.

Approved.

CHARLES J. BONAPARTE,
Secretary of the Navy.

PROPOSALS FOR STEEL ARMOR PLATES FOR BATTLE SHIPS NOS. 26 AND 27.

[Which must be submitted in duplicate.]

To the SECRETARY OF THE NAVY,

Washington, D. C.:

Having carefully examined the advertisement of the Secretary of the Navy inviting proposals for furnishing steel armor plates and appurtenances for naval vessels, and the printed circular embracing same, of May 21, 1906, issued by the Navy Department for the information of those intending to bid upon armor for the Navy, pursuant to said advertisement, and having been furnished with all information in the premises essential to a full understanding of the obligations incurred or to be incurred under and by virtue of this proposal, we, Bethlehem Steel Company, a corporation created under the laws of the State of Pennsylvania, and doing business at South Bethlehem, in said State, do hereby propose and agree as follows:

First. To furnish in the manner, within the time, and upon the terms and conditions stated in the circular aforesaid, copies of which are annexed to and form part of this proposal, the steel armor plates and appurtenances therein described or referred to, and as mentioned and described in the following tables, at the prices per ton and for the total price shown in said tables, as filled in by the undersigned, viz:

Armor for the vessels authorized by the act of Congress approved March 3, 1905, viz, the battle ships South Carolina and Michigan.

Vessel.	Class A armor.	Price per ton.	Total.	Class B armor.	Price per ton.	Total.
	<i>Tons.</i>			<i>Tons.</i>		
For one battle ship No. 26	3,512	\$381	\$1,338,072	5	\$381	\$1,905
For one battle ship No. 27	3,512	381	1,338,072	5	381	1,905
Total	7,024	381	2,676,144	10	381	3,810

Vessel.	Class C armor.	Price per ton.	Total.	Bolts and nuts.	Price per ton.	Total.	Aggregate.
	<i>Tons.</i>			<i>Tons.</i>			
For one battle ship No. 26	147	\$381	\$56,007	30	\$360	\$10,800	\$1,406,784
For one battle ship No. 27	147	381	56,007	30	360	10,800	1,406,784
Total	294	381	112,014	60	360	21,600	2,813,568

Aggregate bid for armor for battle ships Nos. 26 and 27.

	Total tons.	Aggregate.
Armor	7,328	\$2,791,968
Bolts and nuts	60	21,600
Total	7,388	2,813,568

Deliveries of above armor will be commenced within five and one-half months after receipt of preliminary drawings, and continue at the rate of 600 tons per month thereafter.

Second. That the undersigned will provide at South Bethlehem, in the county of Northampton and State of Pennsylvania, a plant, with all needful appliances and appurtenances adequate to the manufacture of said armor plates and appurtenances and to deliveries thereof within the prescribed periods, and that such deliveries shall commence and be continued in the manner prescribed in the circular hereinbefore referred to and at the rates given above.

Third. That this proposal may be held by the Secretary of the Navy under advisement for a period of thirty days after the opening of the bids, and if within that period evidence satisfactory to him with reference to the ability of the undersigned to fulfill the conditions of this proposal shall not have been supplied the proposal may be rejected.

Fourth. In case this proposal shall be accepted we hereby agree to enter into contract within thirty days after the receipt of notice of such acceptance for furnishing steel armor plates and appurtenances in accordance with the advertisement and circular aforesaid and to give a bond, with sureties to the satisfaction of the Secretary of the Navy, in a penal sum equal to 10 per cent of the total amount of this bid for the faithful performance of such contract.

Fifth. This proposal is accompanied by a bond payable to the order of the Secretary of the Navy, for the sum of \$50,000, being 5 per cent of the amount of this bid, which bond shall become the property of the United States in case the undersigned shall fail to enter the requisite contract and to furnish the requisite security on the acceptance of this proposal. In case this proposal be not accepted, said bond is to be returned to the undersigned within thirty days after the opening of the bids.

Witness our hands and seals at South Bethlehem, Pa., the 9th day of July, A. D. 1906.

[L. S.]

Attest: B. H. JONES, *Secretary.*

[SEAL.]

BETHLEHEM STEEL COMPANY,
A. JOHNSTON, *President.*

(Changes authorized by Navy Department's indorsement No. 273-23 of June 14, 1906.)

BETHLEHEM STEEL COMPANY,
South Bethlehem, Pa., July 9, 1906.

SIR: Referring to the attached proposal for steel armor plates for battle ships Nos. 26 and 27, we beg to inform the Department that the prices named therein include all royalty for any patented process, or processes, which may be used by us in the manufacture of such armor.

Respectfully,

BETHLEHEM STEEL COMPANY,
A. JOHNSTON, *President.*

The SECRETARY OF THE NAVY,
Navy Department, Washington, D. C.

BETHLEHEM STEEL COMPANY,
South Bethlehem, Pa., July 9, 1906.

SIR: As evidence of our competency to make the armor plates and appurtenances required under advertisement of the Secretary of the Navy, dated May 21, 1906, and covered by our proposal herewith, we would respectfully refer to deliveries of similar material made by this company under previous contracts with the Department.

In regard to suitable evidence of the incorporation of this company, we would respectfully refer to certified copy of our charter lodged with the Navy Department.

Respectfully,

BETHLEHEM STEEL COMPANY,
A. JOHNSTON, *President.*

The SECRETARY OF THE NAVY,
Washington, D. C.

Proposals for steel armor plates for battle ships Nos. 26 and 27.

[Which must be submitted in duplicate.]

To the SECRETARY OF THE NAVY,
Washington, D. C.:

Having carefully examined the advertisement of the Secretary of the Navy inviting proposals for furnishing steel armor plates and appurtenances for naval vessels, and the printed circular embracing same, of May 21, 1906, issued by the Navy Department for the information of those intending to bid upon armor for the Navy, pursuant to said advertisement, and having been furnished with all information in the premises essential to a full understanding

of the obligations incurred or to be incurred under and by virtue of this proposal—Carnegie Steel Company, of Pittsburgh, Pa., do hereby propose and agree as follows:

First. To furnish in the manner, within the time, and upon the terms and conditions stated in the circular aforesaid, copies of which are annexed to and form part of this proposal, the steel armor plates and appurtenances therein described or referred to, and as mentioned and described in the following tables, at the prices per ton and for the total price shown in said tables, as filled in by the undersigned, viz:

Armor for the vessels authorized by the act of Congress approved March 3, 1905, viz, the battle ships South Carolina and Michigan.

Vessel.	Class A armor.	Price per ton.	Total.	Class B armor.	Price per ton.	Total.
	<i>Tons.</i>			<i>Tons.</i>		
For one battle ship No. 26.....	3,512	\$370	\$1,299,440	5	\$370	\$1,850
For one battle ship No. 27.....	3,512	370	1,299,440	5	370	1,850
Total	7,024		2,598,880	10		3,700

Vessel.	Class C armor.	Price per ton.	Total.	Bolts and nuts.	Price per ton.	Total.	Aggregate.
	<i>Tons.</i>			<i>Tons.</i>			
For one battle ship No. 26....	147	\$370	\$54,890	30	\$370	\$11,100	\$1,366,780
For one battle ship No. 27....	147	370	54,390	30	370	11,100	1,366,780
Total.....	294		108,780	60		22,200	2,733,560

Aggregate bid for armor for battle ships Nos. 26 and 27.

	Total tons.	Aggregate.
Armor	7,328	\$2,711,360
Bolts and nuts.....	60	22,200
Total	7,388	2,733,560

Deliveries of above armor will be commenced within six months after receipt of preliminary plans and continue at the rate of 600 tons per month thereafter.

Second. That the undersigned will provide at Munhall, in the county of Allegheny and State of Pennsylvania, a plant with all needful appliances and appurtenances adequate to the manufacture of said armor plates and appurtenances and to deliveries thereof within the prescribed periods, and that such deliveries shall commence and be continued in the manner prescribed in the circular hereinbefore referred to and at the rates given above.

Third. That this proposal may be held by the Secretary of the Navy under advisement for a period of thirty days after the opening of the bids, and if within that period evidence satisfactory to him with reference to the ability of the undersigned to fulfill the conditions of this proposal shall not have been supplied the proposal may be rejected.

Fourth. In case this proposal shall be accepted we hereby agree to enter into contract within thirty days after the receipt of notice of such acceptance for furnishing steel armor plates and appurtenances in accordance with the advertisement and circular aforesaid and to give a bond, with sureties to the satisfaction of the Secretary of the Navy, in a penal sum equal to 10 per cent of the total amount of this bid for the faithful performance of such contract.

Fifth. This proposal is accompanied by a certified check, payable to the order of the Secretary of the Navy, for the sum of \$50,000, which check shall become the property of the United States in case the undersigned shall fail to enter the requisite contract and to furnish the requisite security on the

acceptance of his proposal. In case this proposal be not accepted, said check is to be returned to the undersigned within thirty days after the opening of the bids.

Witness our hands and seals at Pittsburg, Pa., the 9th day of July, A. D. 1906.

[L. S.]

CARNEGIE STEEL COMPANY.
A. C. DINKEY, *President*.

Attest:

[SEAL.]

JAS. J. CAMPBELL, *Assistant Secretary*.

CARNEGIE STEEL COMPANY.

Pittsburg, Pa., July 9, 1906.

SIR: With reference to the inclosed tender for armor for battle ships *Michigan* and *South Carolina*, we desire to inform the Department that should we be awarded a contract for said armor, we propose to assume liability for any royalties which must be paid for the use of any patented process which may be employed in its manufacture.

Respectfully,

CARNEGIE STEEL COMPANY.
A. C. DINKEY, *President*.

The SECRETARY OF THE NAVY,
Navy Department, Washington, D. C.

PROPOSALS FOR STEEL ARMOR PLATES FOR BATTLE SHIPS NOS. 26 AND 27.

[Which must be submitted in duplicate.]

To the SECRETARY OF THE NAVY,
Washington, D. C.:

Having carefully examined the advertisement of the Secretary of the Navy inviting proposals for furnishing steel armor plates and appurtenances for naval vessels, and the printed circular embracing same, of May 21, 1906, issued by the Navy Department for the information of those intending to bid upon armor for the Navy, pursuant to said advertisement, and having been furnished with all information in the premises essential to a full understanding of the obligations incurred or to be incurred under and by virtue of this proposal, the Midvale Steel Company, of Philadelphia, do hereby propose and agree, as follows:

First. To furnish in the manner, within the time, and upon the terms and conditions stated in the circular aforesaid, copies of which are annexed to and form part of this proposal, the steel armor plates and appurtenances therein described or referred to, and as mentioned and described in the following tables, at the prices per ton and for the total price shown in said tables, as filled in by the undersigned, viz:

Armor for the vessels authorized by the act of Congress approved March 3, 1905, viz, the battle ships South Carolina and Michigan.

Vessel.	Class A armor.	Price per ton.	Total.	Class B armor.	Price per ton.	Total.
	<i>Tons.</i>			<i>Tons.</i>		
For one battle ship No. 26	3,512	\$346	\$1,215,152	5	\$345	\$1,725
For one battle ship No. 27	3,512	346	1,215,152	5	345	1,725
Total	7,024		2,430,304	10		3,450

Vessel.	Class C armor.	Price per ton.	Total.	Bolts and nuts.	Price per ton.	Total.	Aggregate
	<i>Tons.</i>			<i>Tons.</i>			
For one battle ship No. 26	147	\$344	\$50,568	30	\$343	\$10,290	\$1,277,735
For one battle ship No. 27	147	344	50,568	30	343	10,290	1,277,735
Total	294		101,136	60		20,580	2,556,470

Aggregate bid for armor for battle ships Nos. 26 and 27.

	Total tons.	Aggregate
Armor	7,328	\$2,534,890
Bolts and nuts	60	20,580
Total	7,388	2,555,470

Deliveries of above armor will be commenced on or before the dates required by the circular and specifications dated May 21, 1906, page 19, paragraph 115, and continue at the rate of 600 tons per month thereafter.

If necessary, the company will undertake to begin regular deliveries at the rate of not less than 600 tons per month within five months from the receipt of approved schedules of delivery and of information sufficient to enable it to forge and rough shape such armor, provided it be furnished with the final detail drawings of said armor at least three months in advance of the corresponding dates of delivery. Should this quantity be insufficient, the company will agree to deliver up to not less than 800 tons per month, if such quantity should be required.

The price named by the company is net and does not include any royalty to be paid by the Government for any process to be used, nor will the Government be called upon to pay any royalty whatsoever.

The company fully understands the requirements of the specifications that accompany this proposal, and will furnish armor that will meet the requirements of said specifications, and, furthermore, the company will use every endeavor and incur all necessary expense to furnish the very best armor of the several classes that can be produced at the time of manufacture, and the company understands that the tests set forth in the specifications are to be regarded merely as minimum limits of quality, which it is bound to excel if practicable, and the company proposes, and, in fact, the company is at present engaged in making every effort to improve the ballistic quality of the armor plate that it manufactures; and the company furthermore obligates itself to produce armor of the highest quality obtainable or that can be manufactured either in this country or abroad.

Second. That the undersigned will provide at Philadelphia, in the county of Philadelphia and State of Pennsylvania, a plant, with all needful appliances and appurtenances adequate to the manufacture of said armor plates and appurtenances and to deliveries thereof within the prescribed periods, and that such deliveries shall commence and be continued in the manner prescribed in the circular hereinbefore referred to and at the rates given above.

Third. That this proposal may be held by the Secretary of the Navy under advisement for a period of thirty days after the opening of the bids, and if within that period evidence satisfactory to him with reference to the ability of the undersigned to fulfill the conditions of this proposal shall not have been supplied the proposal may be rejected.

Fourth. In case this proposal shall be accepted, we hereby agree to enter into contract within thirty days after the receipt of notice of such acceptance for furnishing steel armor plates and appurtenances in accordance with the advertisement and circular aforesaid, and to give a bond, with sureties to the satisfaction of the Secretary of the Navy, in a penal sum equal to 10 per cent of the total amount of this bid for the faithful performance of such contract.

Fifth. This proposal is accompanied by a certified check, or bond, payable to the order of the Secretary of the Navy, for the sum of \$50,000, being 5 per cent of the amount of this bid, which check, or bond, shall become the property of the United States in case the undersigned shall fail to enter the requisite contract and to furnish the requisite security on the acceptance of his proposal. In case this proposal be not accepted, said check, or bond, is to be returned to the undersigned within thirty days after the opening of the bids.

Witness our hands and seals at Philadelphia, the 10th day of July, A. D. 1906.

[SEAL.]
[L. S.]

THE MIDVALE STEEL COMPANY.
CHAS. J. HARRAH,
President.

THE MIDVALE STEEL COMPANY.
Per H. M. DEEMER,
Secretary.

(Changes authorized by Navy Department's Indorsement No. 273-23 of June 14, 1906.)

[First indorsement.]

NAVY DEPARTMENT.
OFFICE OF THE JUDGE-ADVOCATE-GENERAL.

July 10, 1906.

Respectfully referred to the Bureau of Ordnance, with request that a schedule of the within bids be prepared and returned, with recommendation as to award of contract.

By direction of the Secretary.

S. W. B. DIEHL,
Judge-Advocate-General.

[Second indorsement.]

NAVY DEPARTMENT, BUREAU OF ORDNANCE.

July 13, 1906.

Respectfully returned to the Navy Department, together with schedule and all papers.

In submitting its recommendation as to the award of this contract, this Bureau desires to invite the Department's attention to the following points for its consideration:

The three bidders, Bethlehem, Carnegie, and Midvale Steel companies, represent the only armor-manufacturing plants in the country. The Bethlehem and Carnegie companies commenced the manufacture at the instance of the Government under contracts in 1887 and 1890, respectively, and the Midvale Company entered the field in competition, being awarded its first contract in December, 1903.

The bids of the Bethlehem and Carnegie companies are higher than those of the lowest bidder, the Midvale Steel Company. The status of unfinished armor contracts existing at date with these three companies is briefly as follows:

The Bethlehem Steel Company has to supply under existing contracts about 1,400 tons, of which 175 tons are to be delivered under contract of December 31, 1903, and 1,225 tons under contract of April 1, 1905. This armor will probably be all delivered before the end of this year.

The Carnegie Steel Company has to supply under existing contracts about 820 tons, of which 165 tons are to be delivered under contract of January 9, 1904, and 655 tons under contract of April 3, 1905. This armor will probably be all delivered in the next few months.

The Midvale Steel Company, under contract of December 15, 1903, is required to furnish 5,566 tons of armor, and under the contract of April 5, 1905, 966 tons of armor. Allowing 3 per cent additional, required for ballistic plates, the total amount of armor being supplied by this company under existing contracts amounts to about 6,760 tons. Up to date they have delivered 2,844 tons.

The last of the remaining 3,916 tons of armor is required to be delivered not later than April 30, 1907. Although embarrassment is being caused the Bureau by delayed deliveries, and it seems possible that the armor makers may be penalized under the terms of the contracts for delayed deliveries of certain portions of this armor, yet the Bureau is of the opinion that these contracts will have been completed by the last date mentioned, April 30, 1907, the execution of which will necessitate deliveries of armor at the rate of 405 tons per month.

The greatest amount of armor this company has delivered in one month (April, 1906) is 622 tons. The highest average rate for three consecutive months (February, March, and April, 1906) was 488 tons per month; and the average per month for the four months (February, March, April, and May, 1906) was 414 tons.

The "Circular and specifications concerning armor plate" governing the bids for this armor for the *Michigan* and *South Carolina* require deliveries of armor to commence nine months after the receipt by the armor makers of the forging plans. Assuming that these plans are supplied them September 1, 1904, the first deliveries of armor should be made June 1, 1907, and continue thereafter at a monthly rate of 600 tons. It is probable, however, that the shipbuilders will require about 260 tons to be delivered about May 1, 1907.

From a consideration of the present status of existing contracts, detailed above, all three companies should be ready to begin deliveries at the time desired.

In the act of Congress making appropriations for armor and armament for the fiscal year ending June 30, 1907, it is provided, "That no part of this appropriation shall be expended for armor for vessels except upon contracts for

such armor when awarded by the Secretary of the Navy to the lowest responsible bidder, having in view the best results and most expeditious delivery."

The Bureau is of the opinion that if the contract for all of this armor is awarded to one company, which will result necessarily in the complete closing down of the other two large armor-making plants, that "the best results" will not be obtained. The workmen skilled in this kind of work would become scattered; such of the plant as could be utilized for commercial work would be diverted to it; the armor plants would probably lose their identity as such, and it seems most probable that the companies would abolish them as such, and not be willing in the future to undertake to collect their skilled force, refit the plant, and take up anew this special kind of work. The probable result of such enforced closing down of two armor plants would be to leave the country with only one armor plant to supply all the armor that may be required in the future. This, in the Bureau's opinion, is a condition to be avoided if possible. Not only does the existence of several armor plants increase the resources, but they also encourage competition, as these bids show.

Although the capacity of one plant would seem ample for the present needs of the Navy, yet the chances of unlooked-for delays must be considered. The breaking down of a press or other important piece of machinery; the failure of one or more "groups" of armor to pass ballistic or other tests; a serious fire or other accident at the works; possible strikes, etc.; any such conditions might cause delays in armor deliveries that would cause embarrassment at critical times, or involve charges for delays on the part of the shipbuilders for non-delivery of material.

For these reasons "having in view the best results and most expeditious delivery," the Bureau recommends that 50 per cent of the total amount of armor required be awarded to the Midvale Steel Company, and that 25 per cent be awarded to each of the other companies—the Bethlehem Steel Company and the Carnegie Steel Company—provided the latter companies agree to furnish this armor at the price given by the lowest bidder, or, in other words, that the Midvale Steel Company be awarded the contract for supplying all the armor, etc., for one battle ship, aggregating 3,694 tons, and that each of the other two companies, the Bethlehem Steel Company and the Carnegie Steel Company, be awarded one-half of the armor for the other ship, amounting to about 1,847 tons, provided they agree to accept the price of the lowest bidder.

N. E. MASON,
Chief of Bureau of Ordnance.

NAVY DEPARTMENT,
Washington, July 12, 1906.

Memorandum as to award of contract for the armor for the battle ships *South Carolina* and *Michigan*, under the terms of the act making appropriations for the naval service approved June 29, 1906.

The act above-mentioned contains the following provisions:

"Armor and armament: Toward the armament and armor of domestic manufacture for vessels authorized, fifteen million one hundred and forty-five thousand dollars: *Provided*, That no part of this appropriation shall be expended for armor for vessels except upon contracts for such armor when awarded by the Secretary of the Navy, to the lowest responsible bidder, having in view the best results and most expeditious delivery."

This provision makes it illegal for the Government to use the appropriation in manufacturing armor itself, and likewise forbids the purchase of armor abroad. American armor plants must, therefore, furnish all the armor to be paid for out of the appropriation in question. Of these plants, there are but three; known as those of the Carnegie Steel Company, the Bethlehem Steel Company, and the Midvale Steel Company, respectively. All three of these companies submitted bids for the armor needed in the case of the above-mentioned two battle ships. The bid of the Carnegie Company amounted, in the aggregate, to \$2,732,560, that of the Bethlehem Company to \$2,813,568, and that of the Midvale Company to \$2,555,470. The aggregate quantity of armor to be delivered is 7,288 tons, divided among four classes. The bid of the Midvale Company is the lowest, not only in the aggregate, but for each one of the four classes. All of the bids, however, are lower than any price heretofore paid by the Govern-

ment for the like armor, and lower, so far as the Department is informed, than is paid by any foreign government.

The Department is advised that both the Carnegie and the Bethlehem companies will be completely out of work for their respective armor plants within a short time unless they obtain some portion of this contract, and that the plants in question will be unavoidably shut down and the force therein employed discharged and scattered in the contingency mentioned. This statement seems to be admitted as true by all parties interested. The contractual relations of the Government with the Midvale company have been hitherto satisfactory, but some doubt has been entertained as to its ability to comply with its existing contracts, and it is, in fact, slightly behind the time originally fixed in its deliveries, although the evidence before the Department does not justify the statement that it can not comply with the terms of a contract to manufacture and deliver the whole of the armor in question, and it avers and offers to guarantee its ability so to do.

The Secretary of the Navy is convinced that the best results would be attained in this case and the most expeditious delivery of the armor in question would be secured if the contract were divided between the three bidders. It seems to him clear that it would be against public policy and the best interests of the naval service and, more especially, would seriously affect the assurance of good results and expeditious delivery of materials under this particular contract, if the Government were to find itself obliged to trust to a single armor plant to supply its needs, all American competitors having retired, at least temporarily, from the business and the purchase of armor abroad or its manufacture by the Government itself being at present forbidden by law.

The Carnegie and Bethlehem companies are willing and have offered to reduce their bids to that of the Midvale company and to take, at the prices thus fixed by their competitor, any portions of the contract which may be assigned them, and it seems clear to the Secretary of the Navy that, in the exercise of the discretion reposed in him by the act, it will be advisable to divide the said contract, assigning one-half thereof to the Midvale Steele Company at its prices and one-fourth thereof at the same prices to each of the two other companies: it being his judgment and belief that, to attain with certainty the best results and most expeditious delivery, the Midvale company should be properly assigned one-half of the contract, but no more, and, if practicable at the same prices, the other half should be assigned to its two competitors.

The Department has felt in this case very serious concern by reason of the language of the provision requiring all contracts to be awarded "to the lowest responsible bidder." If these words stood alone, the Department would hesitate to take action which might be construed as amounting to a finding on its part that the Midvale company is not a "responsible bidder;" but it thinks the qualification as to responsibility must be read in connection with the further language of the proviso "having in view the best results and most expeditious delivery." It holds the Midvale company to be the lowest responsible bidder, having in view the above-mentioned ends prescribed by Congress, to the extent of one-half of the present contract, and it awards one-fourth thereof to each of the two competing companies, their bids having been reduced to the figure of the Midvale company, as next entitled, and equally entitled relatively to each other, under the terms of the law, with a view to the best results and the most expeditious delivery.

It is therefore ordered that the contracts be awarded as nearly as possible in accordance with the terms of this memorandum.

CHARLES J. BONAPARTE.
Secretary.

NAVY DEPARTMENT.
OFFICE OF THE JUDGE-ADVOCATE-GENERAL.
Washington, July 13, 1906.

GENTLEMEN: Referring to your proposal of the 9th instant, submitted under the Department's advertisement of the 21st of May last, for furnishing armor for battle ships Nos. 26 and 27, the *South Carolina* and *Michigan*, I inclose herewith for your information a copy of the Department's decision of this date awarding the contracts for such armor, from which it will be seen that your proposal, not being the lowest received, is not accepted, but that in view of the considerations enumerated in said decision the Department considers that the

interests of the Government would be best subserved by distributing the armor among the three bidders, instead of awarding the contract for all to the lowest bidder, one-half to the Midvale Steel Company at the price named by it and one-fourth each to your company and the Carnegie Steel Company, at the Midvale company's prices for the several kinds of armor, subject to the terms and conditions of the specifications attached to your proposal, the allotment recommended by the Bureau of Ordnance being all that is required for one of said vessels to the Midvale Steel Company and the rest to your company and the Carnegie company in equal parts.

Forms of contract, bond, and specifications will be sent you without unnecessary delay for execution.

Please acknowledge receipt of this letter and signify your acceptance of the award made to you as indicated.

By direction of the Secretary.

Very respectfully,

BETHLEHEM STEEL COMPANY,
South Bethlehem, Pa.

S. W. B. DIEHL,
Judge-Advocate-General.

BETHLEHEM STEEL COMPANY,
South Bethlehem, Pa., July 13, 1906.

SIR: We have the honor to acknowledge receipt of the Bureau's telegram of even date, to the effect that this company has been awarded 25 per cent of the tonnage of armor required for the battle ships *South Carolina* and *Michigan*, called for in the Bureau's advertisement of May 21, 1906, amounting to about 1,832 tons, at the prices named by the lowest bidder under the proposals opened at noon, July 10, 1906.

We thank the Department very much for its consideration in this matter, and beg to remain,

Respectfully,

A. JOHNSTON, *President*.

CHIEF OF BUREAU OF ORDNANCE,
Navy Department, Washington, D. C.

NAVY DEPARTMENT,
OFFICE OF THE JUDGE-ADVOCATE-GENERAL,
Washington, July 13, 1906.

GENTLEMEN: Referring to your proposal of the 9th instant, submitted under the Department's advertisement of the 21st of May last, for furnishing armor, for battle ships Nos. 26 and 27, the *South Carolina* and *Michigan*, I inclose herewith for your information a copy of the Department's decision of this date, awarding the contracts for such armor, from which it will be seen that your proposal, not being the lowest received, is not accepted, but that in view of the considerations enumerated in said decision the Department considers that the interests of the Government would be best subserved by distributing the armor among the three bidders, instead of awarding the contract for all to the lowest bidder, one-half to the Midvale Company, at the price named by it, and one-fourth each to your company and the Bethlehem Steel Company, at the Midvale Company's prices for the several kinds of armor, subject to the terms and conditions of the specifications attached to your proposal, the allotment recommended by the Bureau of Ordnance, being all that required for one of said vessels to the Midvale Company and the rest to your company and the Bethlehem Steel Company in equal parts.

Forms of contract, bond, and specifications will be sent you without unnecessary delay for execution.

Please acknowledge receipt of this letter and signify your acceptance of the award made to you as indicated.

By direction of the Secretary.

Very respectfully,

THE CARNEGIE STEEL COMPANY,
Pittsburg, Pa.

S. W. B. DIEHL,
Judge-Advocate-General.

CARNEGIE STEEL COMPANY.
Pittsburg, Pa., July 16, 1906.

SIR: We have to acknowledge receipt of your favor, No. 273-25, of the 13th instant, together with inclosures, in which we are informed that the Department awarded this company contract for one-fourth of the armor required for the battle ships *South Carolina* and *Michigan*, bids for which were opened on the 10th instant, at the price named by the Midvale Company in its tender; which award is hereby accepted under the conditions named.

We note that the forms of contract, bond, and specifications will be sent us for execution at an early date.

We desire to thank the Department for the above-mentioned award, and will execute the contract, bond, and specifications as soon as received.

Respectfully,

CARNEGIE STEEL COMPANY.
W. R. BALSINGER,
Assistant to President.

JUDGE-ADVOCATE-GENERAL,
Navy Department.

NAVY DEPARTMENT.
OFFICE OF THE JUDGE-ADVOCATE-GENERAL.
Washington, July 13, 1906.

GENTLEMEN: Referring to your proposal of the 10th instant, submitted under the Department's advertisement of the 21st of May last, for furnishing armor for battle ships Nos. 26 and 27, the *South Carolina* and *Michigan*, I inclose herewith for your information a copy of the Department's decision of this date awarding the contracts for such armor, from which it will be seen that your proposal is accepted for furnishing one-half of the total quantity required and that the other half is to be divided equally between the Carnegie and Bethlehem Steel companies at the prices for the several kinds of armor named therefor by you, the allotment of armor, as recommended by the Bureau of Ordnance, being all that required for one of said vessels, to your company and the rest to the other two companies in equal parts.

Forms of contract, bond, and specifications will be sent you without unnecessary delay for execution.

Please acknowledge receipt of this letter and signify your acceptance of the award made to you as indicated.

By direction of the Secretary.

Very respectfully,

S. W. B. DIEHL,
Judge-Advocate-General.

MIDVALE STEEL COMPANY,
Nictown, Philadelphia, Pa.

THE MIDVALE STEEL COMPANY.
Philadelphia, Pa., July 18, 1906.

SIR: In reply to the Department's letter, No. 273-27, of July 13, conveying to this company the decision of the honorable Secretary of the Navy in the matter of certain bid made by this company for furnishing armor plate for the battle ships Nos. 26 and 27, *South Carolina* and *Michigan*, we beg to state that this company acquiesces in the decision of the Secretary and accepts the award made by him to the Midvale Steel Company.

We await the forms of contract, bond, and specifications for execution.

We have the honor to be, your obedient servants,

THE MIDVALE STEEL COMPANY,
Per H. M. DEEMER, Secretary.

Capt. S. W. B. DIEHL, U. S. Navy,
Judge-Advocate-General, Navy Department, Washington, D. C.

[No. 13.]

STATEMENT OF HON. VICTOR H. METCALF, SECRETARY OF THE NAVY.

The CHAIRMAN. Many of us know that Mr. Metcalf was formerly a member of this committee, and we are very much pleased over his elevation to the Secretaryship of the Navy.

Mr. Secretary, we would like to get your views with reference to the naval programme for this year, if you desire to express them at this time.

Secretary METCALF. Mr. Chairman, my time has practically all been taken up with the routine work of the Department and pressing, urgent matters, so that I have not had an opportunity to consider important questions of legislation, or even to consider the recommendations made by my predecessor in his annual report. I do have some pretty pronounced views, however, as to the number of ships and the type or ship that we ought to have.

The CHAIRMAN. We would be very glad to hear from you on that.

Secretary METCALF. The great naval powers of the world are constructing battle ships of from 18,000 to 20,000 tons displacement. England has just completed the *Dreadnought*, and that vessel is now in full commission. She has begun the construction of three new *Dreadnoughts*—the *Bellerophon*, *Temeraire*, and *Superb*. She proposes to build three additional *Dreadnoughts* on the programme of 1907-8, all to have a speed of 21 knots or over. In addition to these she has three armored vessels of the *Invincible* type, which are really fast battle ships, 25 knots, with thinner armor and carrying eight 12-inch guns.

The French have now placed orders for the construction of six new battle ships of 18,350 tons displacement; two are to be built in government yards and four in private yards by contract. All six of these ships are to have turbines.

Mr. LOUDENSLAGER. What type of turbines?

Secretary METCALF. I have no information as to the type.

Mr. LOUDENSLAGER. May I ask if all the new *Dreadnoughts* of England are turbines?

Secretary METCALF. I do not know whether they are turbines or not.

Commander SIMS. No battle ships or cruisers or naval vessels of any kind will hereafter be built in England without turbines.

Secretary METCALF. Germany is preparing to begin, as soon as the building slips have been lengthened and strengthened, two battle ships, the *Ersatz-Bayern* and the *Sachsen*, and during the current year to begin two more, the *Ersatz-Baden* and the *Wurtemberg*. These are to be the German equivalent for the *Dreadnought*.

Germany has been heretofore the advocate of the moderate or smaller displacements, but appears now convinced that the larger ships only are fit to meet the heavy ships of recent type. She is spending large sums of money, as I am informed, in lengthening building slips, and proposes to spend some \$50,000,000 in increasing the dimensions of the Kiel Canal, in order to make it available for the new and larger battle ships.

Japan has launched the *Satsuma*, 19,200 tons; and the *Aki*, a few hundred tons larger, will be launched during the current year. The latter is to have turbine machinery and will probably attain a speed of 20 knots. She will probably begin this year a third large battle ship of improved type. She is also building two armored cruisers, which include in their armament four 12-inch guns.

Mr. ROBERTS. Will you allow me to interrupt again?

Secretary METCALF. Certainly.

Mr. ROBERTS. Are these guns all of one caliber; in other words, is the equipment of these vessels of the one-gun type?

Secretary METCALF. Commander Sims can answer that question.

Commander SIMS. They are not exactly that. They have 10-inch and 12-inch guns. Then they have a gun about 4-inch or 4½-inch, which they use for torpedo defense. They are what we call all-big-gun ships.

Secretary METCALF. Russia is to begin this year the construction of four battle ships of about 20,000 tons displacement, to be the equivalent of the English *Dreadnought*; and Brazil, according to information received by the Department, has placed, or is about to place, orders for the building of three 18,000-ton battle ships in Great Britain.

If we expect to maintain an efficient Navy we must keep abreast with the construction of other great naval powers. The President is strongly of the opinion that Congress should authorize at this session the construction of two first-class battle ships of the maximum size and speed, and with their primary batteries all of 12-inch guns.

The views of the President on this subject are the views of the Department, and I earnestly hope that this committee will act favorably upon the President's recommendations and in the naval bill now under consideration will authorize the construction of at least two 20,000-ton battle ships.

Mr. ROBERTS. In addition to the one of last year?

Secretary METCALF. I want the two. I want the one of last year and I want one this year. That will make the two. I would very much prefer to have two this year in addition to the one of last year, if I could get them. Now, it will undoubtedly cost more to build these battle ships, but it will not require as many men to man them, and it will require fewer officers to command the ships.

Mr. PADGETT. Why is it that a 20,000-ton ship will require 600 men and officers to man it, and a 16,000-ton ship requires 800 men?

Secretary METCALF. Because the guns are all practically of the same caliber.

Commander SIMS. The guns are all of the same type and use the same ammunition. The *Dreadnought* has 10 guns. Each one of those turrets requires a certain number of men. Take the *Louisiana*, for instance; she has got two turrets, and then she has got four 8-inch

turrets and she has got sixteen 6-inch guns, and it is those guns, with the ammunition and supplies, and so forth, that require so many men. It is the multitude of the guns that requires the men, and not the size of the guns.

Secretary METCALF. Captain Wainwright and Commander Sims have made special study of these subjects, and I have asked them to appear before the committee to-day for the purpose of furnishing information to the committee.

Mr. KITCHIN. Could the guns be made of a more uniform size on a smaller basis?

Commander SIMS. Yes; but they would not be large enough to do what you want them to do—to pierce the armor of the other fellow at $3\frac{1}{2}$ miles. A smaller gun than 12-inch will not pierce its armor and explode inside, if you fight at ranges of from 3 to 4 miles, as they will fight now. The essential difference of the thing is this: You have seen the pictures of the *Dreadnought*, of course. Her forward gun is 35 feet above the water, and therefore she can fight those guns in a seaway, which the *Michigan* could not do. The forward guns of the *Michigan* are 10 feet lower.

Secretary METCALF. That is all I wish to say, Mr. Chairman.

The CHAIRMAN. Are there any questions to be asked of the Secretary?

Mr. KITCHIN. When you consider that a few years ago a 12,000-ton ship was a big ship, and then later a 16,000-ton ship was a big ship, and now an 18,000-ton or 20,000-ton ship is a big ship, in all probability will not a 20,000-ton ship be out of the big ship class within the next ten years?

Secretary METCALF. Of course I am not prepared to answer that question. All I ask is that we be given exactly the same ships as other nations have, and the same armament, and then we will take the chances with our officers and men. But if you give us inferior ships—

Mr. KITCHIN. But ought we not to build a larger ship? Why not go to a 30,000-ton ship, and other things in proportion, at once?

Secretary METCALF. I am not prepared to answer the question about a 30,000-ton ship. That would be an experiment.

Mr. KITCHIN. All others were experiments at first.

Secretary METCALF. They all proved to be successes.

Mr. VREELAND. I would be glad to have the opinions of the gentlemen who are experts on this. It is a practical question. Why not build a 30,000-ton ship?

Mr. KITCHIN. Ought we not to build the largest ship and the most effective ship that naval architects can design, right now? Why not do it now instead of waiting ten years?

Secretary METCALF. These questions have all been considered by the general board and the board on construction, and they have recommended the naval programme for this year, and I have asked these two gentlemen to come down from the Department to answer just such questions as you put, and I think they are the proper ones to answer these questions.

The CHAIRMAN. Are there any further questions to be asked of the Secretary?

Mr. ROBERTS. I would like to ask the Secretary if the Paymaster-General said anything about a bill clerk at the storekeeper's in the Charlestown yard?

Secretary METCALF. I was told that you called at the Department about that. The Paymaster-General says they have bill clerks at \$1,000 a year at League Island and Norfolk and a number of other places, and at \$1,200 at the naval station at Cavite, but Boston has never been allowed one. He says that the work of bill clerk at that yard is now performed by a man paid out of the appropriation for labor in general storehouses, \$873.60 annually, and if the committee can be persuaded to allow one as at other yards, the present incumbent will be appointed, with a total increase in pay of \$123.46.

Mr. ROBERTS. Have you any recommendation to make as to that?

Secretary METCALF. I have no recommendation to make other than what the Paymaster-General of the Navy has said, because I am not familiar with the matter.

Mr. ROBERTS. Do you concur in what he says?

Secretary METCALF. I have every confidence in the Paymaster-General, and I would feel like indorsing what he has stated as to the necessity.

Mr. LOUDENSLAGER. I would like to ask the Secretary a question or two.

The CHAIRMAN. Mr. Loudenslager.

Mr. LOUDENSLAGER. What time do you suppose will be consumed in the building of this 20,000-ton battle ship?

Secretary METCALF. I am hardly prepared to answer that question. It has taken heretofore from three to four years to build battle ships.

Commander SIMS. They built the *Dreadnought* within one year after the keel was laid.

Mr. LOUDENSLAGER. Then how are we to keep up with Japan and Great Britain and the other nations in building 20,000 or 25,000 ton battle ships if they are building theirs in twelve months and we take four years to build ours?

Secretary METCALF. I think if we provide in the contract that the ship should be built within two years, and pay a large enough price, we could get it in two years.

Mr. LOUDENSLAGER. Do you not think it would be the part of wisdom to cut that time down?

Secretary METCALF. Yes; I do, most decidedly.

The CHAIRMAN. Are there any further questions? Have you anything further to offer to the committee, Mr. Secretary?

Secretary METCALF. No, sir; nothing further. I would like you to hear from Commander Sims and Captain Wainwright.

[No. 14.]

STATEMENT OF CAPT. RICHARD WAINWRIGHT AND LIEUT. COMMANDER WILLIAM S. SIMS, U. S. NAVY.

The CHAIRMAN. We have Captain Wainwright, of the General Board, and Lieutenant-Commander Sims, who are experts, before us this morning.

Secretary METCALF. In this connection I would ask each member of the committee to read Lieutenant-Commander Sims's article, recently published, and Captain Wainwright's article also.

The CHAIRMAN. Captain Wainwright, we would like to have you tell us briefly the advantages of big ships over smaller ships; I mean by that ships of large tonnage, 20,000 tons, as against those of 16,000 to 14,000 tons, which we have been building heretofore. Briefly state the advantages for the superiority.

Captain WAINWRIGHT. I can best describe it by comparing the 510-foot ship, the design of which was sent to Congress by the Department, and the *Louisiana* type, which is a 16,000-ton ship, that we now have afloat. The 20,000-ton ship, 510-foot design, will have a broad-side fire of ten 12-inch guns, whereas the *Louisiana* type has a broad-side of only four. The *Louisiana* type has a number of smaller guns, 8-inch and 7-inch. We believe that with the superior accuracy at long ranges of the 12-inch gun, and its superior destructive effect, when the *Louisiana* type gets near enough to you to use her smaller guns they will be virtually put out of the combat; that there will be sufficient hits with ten 12-inch guns to destroy them.

The next advantage is having a larger displacement, a better gun platform, and that means more hits. They carry the guns higher so that they can be fought better. The new type carries the guns somewhat higher than the *Dreadnought*.

Mr. COUSINS. That makes a larger surface for the enemy to hit.

Commander SIMS. When you get up to these big battle ships the proportion of difference is very small, and all the vitals are very well protected. They are better protected in the 20,000-ton ship than in the 16,000-ton ship.

They also have higher speed. They get 21 knots with the reciprocating engines, against a little over 18 knots with the 16,000-ton ship.

Mr. PADGETT. Why is it that a larger ship, a larger object, that would necessarily have more friction and greater weight, will go with greater speed than the smaller one?

Captain WAINWRIGHT. Because the resistance does not increase in direct proportion to the size. You can get greater power in proportion to the size.

Mr. PADGETT. Is it due to the larger engines and the larger and stronger machinery?

Captain WAINWRIGHT. You use larger machinery, and the proportionate part of the displacement that you must absorb or use up in driving her ahead is less the larger the ship grows. I do not know what it will be with the 20,000-ton ship.

Mr. PADGETT. That is, your power increases in greater proportion than the increase of friction?

Captain WAINWRIGHT. Yes.

Mr. LOUDENSLAGER. The possibility of that has already been demonstrated in our merchant marine, has it not?

Captain WAINWRIGHT. Yes; the larger the ship the greater the driving power in proportion to the weight of the engine.

The CHAIRMAN. Have you stated all the essential points of superiority?

Captain WAINWRIGHT. There is another one, which is a very important one now that the submarine has been developed so greatly, and that is the greater subdivision that you can have in a large ship: the protection against the explosion of mines, and also, incidentally, of torpedoes. You can put your magazines and other vitals further away from the bottom of the ship. You have more room, and you can put a subdivision in between, so that if they should explode a mine under the vessel, instead of reaching the vitals they will just open some compartment and possibly not seriously injure the ship. The more thoroughly you can divide your ship in that way the better protected you are. In a 510-foot ship they have got to design a bigger mine before they can destroy the ship.

Mr. LOUDENSLAGER. Do you not think that we, as a progressive nation, ought to be willing to keep ourselves abreast of, or a little beyond, the other nations, and could we not build a better battle ship, without much of an experiment, of 22,000 tons, and a little heavier armament?

Commander SIMS. Of course.

Mr. LOUDENSLAGER. And would you not think that still more advisable?

Captain WAINWRIGHT. I was on the board which passed on the design, and that board recommended to the Secretary the feasibility of a larger ship, 554 feet, and about 22,000 tons. But there was not a positive assertion that that ship would be better than the 20,000-ton ship.

Mr. LOUDENSLAGER. Why not?

Captain WAINWRIGHT. It is somewhat a leap in the dark. Now, going into a 20,000-ton ship you are not making an unknown experiment.

Mr. LOUDENSLAGER. Why?

Captain WAINWRIGHT. You have enough data to know that you can build a ship of that size and make it strong enough, and you can put the guns on it. On the 22,000-ton ship you can put two more guns—that is, you can have a broadside of twelve 12-inch guns—and you can put on a little more armor. The reason that no such design was presented was because we could not build it under the appropriation of \$6,000,000 made by Congress. There was a design made of that size which was rejected because the money appropriated did not allow for sufficient protection.

Mr. ROBERTS. I would like to ask the captain a question. Does the draft of these ships increase proportionately with their length?

Captain WAINWRIGHT. No; there is quite a tendency now to increase them in proportion with their length, but not so as to be vital.

Mr. ROBERTS. Can you tell me the draft of this *Dreadnought*, the ship that we have authorized?

Captain WAINWRIGHT. Twenty-seven and one-half feet.

Commander SIMS. The draft of the British *Dreadnought* at her trial displacement was 26½ feet.

Captain WAINWRIGHT. Our own design will have a draft of 27½ feet, about.

Mr. ROBERTS. Will not the draft of water in our harbors and the draft of water over the sills of our dry docks practically limit the draft of the new design ships?

Captain WAINWRIGHT. It will practically limit it.

Mr. ROBERTS. You have got to get you capacity by increased length and increased beam?

Captain WAINWRIGHT. Yes; by increased length and increased beam. A slightly increased depth, but a greatly increased beam and length.

Mr. LOUDENSLAGER. Right on that line, you spoke of being compelled to have to change our dry docks. All of our recently constructed dry docks are constructed with a draft of 30 feet.

Captain WAINWRIGHT. Yes; we have several docks that will take them in. I was going to say that the board did not see any reason why a battle ship should enter all the ports. The main point of the battle ship was to be at sea, and so long as we have sufficient points to get them in to repair them that is all we want.

Mr. LOUDENSLAGER. But the battle ship must not have too much draft to get in where there is a dry dock.

Captain WAINWRIGHT. She need not get in at every point. For instance, battle ships with that draft could go into the Guantanamo dry dock.

Mr. LOUDENSLAGER. And they could get in at New York and at Norfolk.

Mr. ROBERTS. Another point. I understood Commander Sims to say that the Japanese are arming their new ships with 10 and 12 inch guns?

Commander SIMS. Yes; and that brings up a very interesting point.

Mr. ROBERTS. I wanted to get the ideas of you gentlemen. In your article recently, and also in your article before the Naval Institute, you were against this multiplication of gun sizes aboard ship, and your argument would be against 10 and 12 inch guns on the same ship.

Commander SIMS. Yes; I said that while what we need is one caliber of big guns on a ship, certain other nations were building big-gun ships having 9.2 and 11-inch, 10 and 12 inch, and so on.

This is rather technical, of course. Everybody usually supposes, who has not gone into this thing very closely, that if you aim a gun and give the sight for a certain elevation, the shell will go a certain fixed distance. There is nothing in it. This powder changes, the ethers dry out of the powder, and it gets livelier; there are certain changes that take place so that the force of the powder is different, and it may send that projectile two or three or four hundred yards less or more than the range intended; but if the guns are all of the

same caliber the range of all the guns will vary equally. For example, the 12-inch and the 10-inch guns will vary unequally; and I have seen instances where the differences between a 6-inch and a 12-inch gun would be as much as several hundred yards.

MR. ROBERTS. That means either hitting or missing the target?

Commander SIMS. Yes.

MR. ROBERTS. It means a difference in penetrating power?

Commander SIMS. No; a very small difference in penetrating power—it is a question of hitting your target. We have found out that if you want to be successful in battle you must have all the guns on board ship of the same size.

* * * * *

With 12-inch guns and 6-inch guns on the same ship, when you are just within fighting range with the 12-inch guns, the 6-inch guns are of no use at all, as you can not hit with them.

MR. LOUDENSLAGER. A little while ago you spoke about the deterioration of the powder. How much does it deteriorate in a year?

Commander SIMS. It is not a deterioration of the powder. It is just this: You make the powder, and there are certain volatiles in it which immediately begin to evaporate, and as they evaporate the character of the powder changes. If you would give us enough money so that we could keep powder on shore three years before we used it, it would go out into service in a more stable condition; but these volatiles begin to dry out on board ship, and the velocity changes.

MR. LOUDENSLAGER. It changes by virtue of the changes in the powder?

Commander SIMS. Yes. It may burn faster or slower. You can not say that it deteriorates; it just changes. The longer you keep powder the more stable it becomes. Sometimes it carries the projectile a less and sometimes a greater distance.

MR. LOUDENSLAGER. What advantages, if any, has a smaller ship of a smaller tonnage?

Commander SIMS. The whole business of the big ship and the small ship, as I pointed out in my paper, is a question of the tactics of the thing. It seems to me it is pretty much like saying that a man who weighs 200 pounds can lick three or four times his own weight in half-grown boys. In the first place, he can hit more hard blows, he can stand more punishment, and then also he can run faster, and so can refuse battle or give battle as he pleases. If you take a line of *Louisianas* that is 5 miles long and you give me three ships that have each a broadside fire of ten 12-inch guns, I can begin at the top of that fleet and chew it up in detail, right straight down. They can not do anything, you see. I do not care how many there are of them. It is concentration of the force in a small space that counts.

Suppose you build a 60,000-ton battle ship, and she has got a broadside of twenty 12-inch guns, and you take a line of *Louisianas*, I do not care how long, she can overpower with her fire the guns of the ships nearest her in the line two or three to one. We have here simply the eternal principle of all tactics, namely, to bring to bear a force on a unit or section of the enemy where he can not reply with equal force. That is what this thing does; and the arguments in favor of the big battle ship are inherent in the design. It is not because anybody got them up, or that anybody was clever in fixing up the arguments. I

have never seen any naval officer who did not recognize the truth of this. That paper was sent around to all the naval officers in the service and I have had letters from all sorts of officers, and never have found any difference of opinion.

Mr. ROBERTS. In addition to the greater offensive power, you have a decreased cost of maintenance?

Commander SIMS. That is altogether another thing.

Mr. ROBERTS. But it is an added argument in favor of the big ship?

Commander SIMS. Yes, that adds to the argument; but I assume that whether it costs more or less, your committee would vote for the greatest efficiency; and when you come to consider the expense of the thing, suppose that you built eight ships costing \$10,000,000 apiece or \$80,000,000 in all. You take the same amount of money and put it in ships of the smaller class, and you can build about one and three-fourths as many ships; but when you come to the maintenance, the maintenance of the little ship is about the same as that of the big one.

Of course the big ship takes a little more coal, and a little more of some other things, but the maintenance is considerably less, and the docking costs, of course, are less for the squadron of big ships. The point about it is this, that if Congress wants to increase our naval force by a certain number of guns, say, 32 guns, and you put it up to the people of the Navy Department to discuss these things, they will tell you that it is cheaper and more efficient to mount a large number of guns on each big ship.

Mr. KITCHIN. Following your argument for the big ship, it seems to me very important to know exactly how large a practical ship, in your judgment, naval architects can at this time with tolerable certainty design?

Commander SIMS. If they really wanted to build a bigger ship, how big could they make it?

Mr. KITCHIN. Yes.

Commander SIMS. I do not think there is any reasonable limit except the draft of water where you have to use the ship.

Mr. KITCHIN. But the ultimate purpose of a battle ship being to destroy the enemy, we may ultimately have to enlarge our docks and deepen our channels to accommodate the necessary ships?

Commander SIMS. Yes, sir.

Mr. KITCHIN. In your judgment, then, a 30,000-ton ship can be safely designed and will be practical?

Commander SIMS. I think so. I think so, without a doubt.

Mr. KITCHIN. What effect, in your judgment, would our authorizing a 30,000-ton ship have upon the navies of the world?

Commander SIMS. There is only one effect it could have; that is to say, if they were satisfied that this was not an individual experiment, if, on the other hand, they were satisfied that you intended to build a fleet of these vessels—two squadrons of eight vessel—I have not the slightest doubt it would be responded to at once on the other side.

Mr. KITCHIN. Would it not have two effects? Owing to the great wealth and resources of our country, would it not have the effect of bluffing the other nations, or leading to some international agreement as to the size of battle ships?

Commander SIMS. It might do either one or the other. An international agreement would possibly be desirable; that would put a

stop to these increases in size. But I think, now that the nations of the world understand what this increase in size means, it will go right ahead. I anticipate larger battle ships. The reason that they did not have these larger battle ships before is a comparatively simple one.

There is no doubt about it that the navies of the world, without any exception, allowed themselves to be governed by tradition with reference to the use of their guns. They concentrated their attention on building the ships and the armor and the guns, and they did not give enough attention to the logical use of those guns after they were built. They did not develop the hitting power of those guns. I can show you in an official document where it is stated that the reason we did not advocate a larger gun on board ship was because the bigger the gun the poorer its hitting qualities.

Mr. KITCHIN. Does not that lead to the opinion that the increase in the size of the ships will be more rapidly developed in the next ten years than in the last ten years? Is it not tolerably certain from that line of reasoning that the size of battle ships will increase more rapidly in the succeeding years than in the past years?

Commander SIMS. I think so. As to the rate of increase, as I pointed out in one part of that paper, we have, for instance, recently made a sudden jump from 16,000 to 18,000 and 19,000 tons. The reason of that sudden jump is that the 16,000, 15,000, or 14,000 ton battle ship—the ordinary battle ship—can mount a 12-inch turret forward and one aft, but she is not long enough to put two more of these turrets efficiently on the side. Since we concluded that we wanted to have all the guns of the same size, and therefore all big guns, you had to jump from 16,000 to 19,000 or 20,000 tons in order to get a ship big enough to put them on. But, the British *Dreadnought* and the ships we are building here have a broadside fire of eight 12-inch guns. If you want to increase it you have got to jump another couple of thousand tons. If you want to put 12 on a broadside, it would be 22,500 tons.

Mr. KITCHIN. Such a ship increases in effectiveness more rapidly than it increases in cost or size?

Commander SIMS. Yes.

Mr. KITCHIN. Is it not probable, then, that within ten years from this date a 20,000-ton ship will be an inferior ship on the high seas?

Commander SIMS. That is a question of opinion. I do not know how other people look at it, but this is true, namely, that if we should build 25,000 or 30,000 ton battle ships, having a greater number of 12-inch guns on the broadside, they will be more efficient than the ones we are building now with a broadside of 8 or 10 guns on 18,000 or 20,000 tons.

Mr. COUSINS. Why do you limit the gun to 12 inches?

Commander SIMS. The only reason is that the 12-inch gun is sufficiently large to do the work that we want it to do—that is, it will pierce the armor of the ordinary battle ship at 3 or 4 miles.

Mr. COUSINS. But you were just speaking of the smaller guns being out of range, whereas you were in range with your larger gun. Now, if you had a larger battle ship with a larger gun, would not they be entirely out of range, while you were in range?

Commander SIMS. I spoke of a ship with 12-inch, 8-inch, and 6-inch guns. With those 12-inch guns you can hit another battle

ship at a distance of 4 miles, but with a 6-inch gun you can do nothing, because the projectile from the 6-inch gun goes away up in the air and comes down at a considerable angle, and if you are not exactly right in your range it does not hit.

Mr. COUSINS. All our battle ships have 12-inch guns?

Commander SIMS. They have two turrets; four 12-inch guns.

Mr. COUSINS. They are in range just as soon as you are with your bigger ship?

Commander SIMS. Yes; but with a bigger ship you are lined up against the smaller ship with twice the battery that it has. Say you are here, with the *Louisiana* within 4 miles, and you have a broadside of 10 12-inch guns, while the *Louisiana* has only four. Her 7-inch guns, and all that sort of thing, will do you no harm, because she can not hit you with them. The 14-inch gun has a greater destructive power, of course. It may be that if ships are built with 15 or 16 inches of armor, you would have to have the 14-inch gun.

Mr. PADGETT. Will the 14-inch gun carry farther than the 12-inch gun?

Commander SIMS. Generally speaking, the larger the gun the farther it will carry.

Mr. PADGETT. We did build 13-inch guns, and then we abandoned them. Were they not abandoned because they were found not to be superior to the 12-inch guns?

Commander SIMS. No, sir. We had not then reached such a stage in the construction of guns that we could give more than a certain pressure in the bore. This gave it a certain velocity—2,000 feet—and that multiplied by the weight of the projectile gives you the hitting power, and we found that that hitting power was getting too small for the armor and we tried to improve the guns, and we found that with the improved 12-inch gun we got a greater hitting power than we had with the old 13-inch gun, so that we put these latter guns on board ship.

Mr. PADGETT. So that you gave the same velocity to the projectile of the 12-inch gun?

Commander SIMS. Yes; the 13-inch projectile weighs 1,150 pounds, and you can only carry a few of those. If the 12-inch projectile will do the business and will pierce the armor of any battle ship that she is going up against, and the ammunition is of less weight and requires less space to store it, you can carry more of the projectiles on the ship. So the aim is in all gun construction to mount the smallest gun that will do the work that you want it to do.

Mr. PADGETT. You spoke about the broadside fire of the *Dreadnought* and the larger ships. What is the fore and aft fire of the *Dreadnought*?

Commander SIMS. The fore and aft fire of the *Dreadnought* directly ahead is 6 12-inch guns.

Mr. PADGETT. And directly behind?

Commander SIMS. And directly behind it is 6 12-inch guns, with 8 on each broadside.

Mr. VREELAND. What is the size of this boat that we are going to build whose plans were sent up? Is that 20,000 tons?

Commander SIMS. Twenty thousand tons.

Mr. VREELAND. The board is unanimous for a vessel of that size?

Commander SIMS. I understand so.

Mr. VREELAND. Were they in favor of a larger-class vessel last year?

Commander SIMS. Yes; in a way. There was a board appointed to consider the plans submitted by the board of construction and by outside parties. We have the board on construction, which is composed of five bureau chiefs, and they decided on the type of a battle ship, and that is what they have been doing in the past.

The General Board does advise—has been asked and sometimes in the past has advised—and it has not always agreed with the board of construction. When the British designed the *Dreadnought* they created a board every man of which was known to have the most information, each man in his specialty, like Lord Kelvin and Mr. Froude, who carries out all the tests, and Mr. ———, who is now the professor at the University of Edinburgh, and Mr. ———, constructor at the Portsmouth yard, that when those men decided on a type of battle ship there was nobody in the British navy who could have anything to say. We did that thing last time by taking the General Board and adding two or three officers of ability to it, so that it is for everybody else in the Navy to throw up his hands after the decision of a board like that.

Mr. VREELAND. I think it was not longer than two years ago that we were informed by the Secretary that the board which did have in charge the recommendation of the size and class of battle ships to be built were divided as to the practicability of building these larger ships. They thought that there would be nothing gained in going beyond, say, 16,000 tons. Was that one year or two years ago?

Commander SIMS. I think it was three years ago. I think you are probably thinking of the *Idaho-Mississippi* controversy.

Captain WAINWRIGHT. No; it was a difference of opinion between the General Board and the board on construction. The General Board in 1904 asked for sketch designs of an all-one-gun ship, and it was proposed to have ten or twelve large guns, and a division of opinion arose, and the board on construction did not believe in having all large guns at that time.

Commander SIMS. Might I point out the method of designing a ship? We will say that a foreign nation builds a ship with a broadside fire of eight 12-inch guns, and therefore we do not want to build a less ship than that. I am talking about the decision of the board. That ship will have a speed of 21 knots; therefore we will give ours that much speed. She will have 11 inches of armor, and we will give ours that. Now, after you have decided all these questions you go to work, by pure mathematics, to work out the displacement. But when Congress says that you shall build a battle ship of 16,000 tons and limits the size, there must be serious compromises, and that results, for example, in a *Michigan* class. That class has a broadside of eight 12-inch guns, the same as the *Dreadnought* has. The *Dreadnought* has a high forecastle, her forward turret guns are up 35 feet in the air, while the guns on the *Michigan's* forecastle are 10 feet lower than those of the *Dreadnought*.

Therefore you might come up against a squadron of *Dreadnoughts* with a squadron of *Michigans* in a sea so heavy that you could not use the *Michigan's* forward guns at all, because the ship would dip her nose and pick up the top of a wave, and all that water would rush aft, and you could not use those forward guns.

Mr. VREELAND. That is, the water would prevent your using them?

Commander SIMS. Yes; she dips her nose in, and the water comes aft, and you have to keep your turret ports shut.

In regard to turbines, the turbines of the *Dreadnought* weigh about as much and take up about as much space as the reciprocating engines do; but the essential feature of the turbine is this: You go down in the engine room of a vessel that has turbines, and all weights are very low in the ship, which enables you to put your guns up in the air and still have the ship balanced. That is a great military advantage of the turbines.

Mr. VREELAND. I think that when Congress limits the size of a ship it is really limited by the Department. Opinions differ as to the number of vessels that we should build and the other details, but I think there is a unanimous opinion that when we do build a battle ship it should be of the best type known.

Commander SIMS. Yes.

Mr. VREELAND. Lately there has been considerable discussion in the committee as to whether our naval board, which have these matters in charge, are keeping up to the front in naval architecture, or whether we are just waiting until a *Dreadnought* is built by another country to build one ourselves.

Commander SIMS. Yes, that is what we are doing.

Mr. VREELAND. And then following up to that stage; hence I was interested in the question of Mr. Kitchin as to whether our naval board can not take an advanced position and build something more powerful than has been designed by other nations.

Commander SIMS. You have it in this new ship. She is 25 per cent stronger.

Mr. LOUDENSLAGER. Than the *Dreadnought*?

Commander SIMS. Yes; she has a broadside fire of 10 guns, and the *Dreadnought* has a broadside fire of 8. I think that the committee will appreciate the fact, and I think this applies to nearly all of these points, that until comparatively recent years the fighting officer of the Navy has not had much to say about what the military characteristics of a vessel ought to be, and the reason that he has not had much to say about that is because he has accepted without question the ships designed by the Navy Department, by the constructors.

Now, as soon as we began to look into the efficiency of our ships from a military point of view, to develop their hitting capacity, and to see what the placing of the gun in a low position meant, the naval officer in the last six years has begun to study this business seriously, and now they are putting up a protest every time a type is turned out which they do not think is the thing they ought to have. A line officer should not be allowed to design a ship. He is not competent to do it. He could not design a ship that would not upset, that would be properly balanced; but this is what he wants to say: He wants to say that the guns should be carried at a certain height and that they should be of a certain size; that the ship should have a certain speed; that the armor should be of a certain strength to resist the other fellow, and that he ought to have a certain number of guns on the broadside. He ought to have the say as to the military requirements.

I might have written that article of mine, or any article on designs and gunfire, ten years ago, and I do not think I would have had

many readers in the Navy. They would have said that our ships and guns, as they are, were the best in the world; that the newspapers say so, and therefore it must be true—and let it go at that.

Mr. LOUDENSLAGER. About the time that the English were discussing the building of an 18,000-ton battle ship I was very much in favor of starting out ourselves, while it was under discussion, and practically everyone of the Bureau chiefs down at the Department gave it as his opinion that no battle ship of over 16,000 tons would have any greater efficiency.

Commander SIMS. You will find that every Bureau chief to-day has the opposite opinion, with the possible exception of the chief of the Bureau of Construction and Repair.

Mr. LOUDENSLAGER. Yes; and to-day if the men of the Navy, the men who manage the Navy and look out for its efficiency, believe, in their best judgment, that we ought to have a 22,000-ton ship, I think it is up to them to say to Congress to build a 22,000-ton ship, and if Congress fails to do it, that is the fault of Congress.

Commander SIMS. That is my opinion.

Mr. LOUDENSLAGER. And it does not seem to me we ought to be willing to trail in the path of any other nation.

Commander SIMS. I agree with you entirely.

Mr. LOUDENSLAGER. If we can go ahead.

Commander SIMS. I agree with you.

Mr. PADGETT. At that point, and on the same line; Captain Wainwright said there was a 22,500-ton ship designed, but not submitted or reported because it could not be brought within the \$6,000,000 appropriation. What is your opinion as to the advisability of building a 22,500-ton ship, and increasing the appropriation?

Captain WAINWRIGHT. I think the board all agree, at least it is my opinion, that if the appropriation is large enough to permit its being properly protected, carrying sufficient armor, that it could be done.

Mr. PADGETT. So as to make it first class?

Captain WAINWRIGHT. So as to make it first class; make it 22,000 tons. I would like to say that they did not jump to 30,000 tons; and there are very good reasons why we should not go too rapidly. If you are going to have bigger guns it will take us some time to develop them for one thing.

Mr. PADGETT. Would it be better to increase the \$6,000,000 limit so as to authorize a first-class 22,000-ton ship?

Commander SIMS. Certainly.

Captain WAINWRIGHT. Yes, sir; you would get something better than anything in existence now, and as good as could be designed.

The CHAIRMAN. We have had a good deal in our hearings about the proper units. I understand that the unit decided on in the Navy is four ships of the same tonnage and size?

Commander SIMS. Yes.

The CHAIRMAN. How are we situated with reference to this question of units to-day in the Navy?

Commander SIMS. Nothing could possibly be worse than our situation to-day. Take the *Kearsarge* class, and we have two, of the *Alabama* class we have three. Some classes have two, three, or five. No consistent policy has been carried out in that respect.

The CHAIRMAN. For instance, we have just built the *South Carolina*

and the *Michigan*, and it has been said that we ought to duplicate those ships in order to have four.

Commander SIMS. I believe it would be an utter fallacy. All this talk about a homogeneous squadron does not mean anything at all; it is utterly fallacious. If you will just look at this you will see what it will mean, putting those two big ships in there, and how it will strengthen the head of the line. If I were Secretary of the Navy I would prefer to have one of those big battle ships than two of the 16,000-ton class. She will lick the two of them.

The CHAIRMAN. Can we not use those that we have now?

Commander SIMS. Yes; there is no difficulty in using the ships of different lengths together.

Captain WAINWRIGHT. You have eight of the same maneuvering qualities—of the *South Carolina* and *Michigan* class—all the same speed and the same size and the same radius; they are complete units; eight ships to make the two divisions.

The CHAIRMAN. If we should start in and build a 20,000 or 22,000 ton ship, how many ought we to build of that size and that type and that speed?

Captain WAINWRIGHT. And maneuvering qualities?

The CHAIRMAN. Yes.

Captain WAINWRIGHT. Four.

The CHAIRMAN. At least four?

Captain WAINWRIGHT. Yes, sir.

Mr. VREELAND. And suppose that when these are completed, three or four years from now, they are not building that size, but 24,000-ton ships?

Captain WAINWRIGHT. I would say that it is very bad policy to build one ship at a time, when we build them so slowly as we do build them, because when it comes out the fourth ship is four years older than the first one.

The CHAIRMAN. Then we ought to build them four at a time, ought we, in order to have them of the same type—a homogeneous squadron?

Mr. PADGETT. How long did it take to build the *Dreadnought*?

Commander SIMS. She was laid down on October 2 one year and was sent out to sea for a trial the next year on October 1.

Mr. KITCHIN. I have this question on another subject. Captain, have you considered this proposition known as the Isham shell explosive?

Captain WAINWRIGHT. I have heard a little of it. I have not considered it. I would not like to say anything about it.

Mr. KITCHIN. You do not know enough about it to express any opinion?

Captain WAINWRIGHT. No.

The CHAIRMAN. We have a letter from the Chief of the Bureau of Ordnance on that matter which I have had printed.

Mr. KITCHIN. My information is very meager on it. I did not know of it a month ago, but it has impressed me as being worthy of some experiment.

Captain WAINWRIGHT. We have experimented in that direction very frequently, but without any success. But we can never say what will not happen. I do not believe in it.

Mr. VREELAND. Is there anything new about his proposition?

Captain WAINWRIGHT. It is an old thing over again.

Mr. COUSINS. Is it true that the Japanese had a high explosive of their own of great power?

Captain WAINWRIGHT. They had a high explosive of their own; yes, sir; but I do not think they will use it again.

Mr. COUSINS. Why?

Captain WAINWRIGHT. Because it went off outside of the armor and did not penetrate.

(At 5.30 o'clock p. m. the committee adjourned.)

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[No. 15.]

**STATEMENT OF HON. H. A. HERBERT ON H. R. 22129, FOR THE
PROMOTION OF OFFICERS ON THE RETIRED LIST.**

COMMITTEE ON NAVAL AFFAIRS,
HOUSE OF REPRESENTATIVES,
Friday, January 18, 1907.

The committee met at 2.30 o'clock p. m., Hon. George E. Foss (chairman) in the chair.

The CHAIRMAN. Mr. Herbert, formerly Secretary of the Navy, desires to be heard upon a matter in connection with the pay of retired naval officers, and we will be glad to hear him now.

STATEMENT OF HON. HILARY A. HERBERT.

Mr. HERBERT. Mr. Chairman and gentlemen, I am appearing before you in relation to what appears to me to be a necessary amendment to carry out the purposes of the act passed on June 29 last for the promotion on the retired list of certain officers of the Navy, and I wish to say in advance that whatever views any member may have had as to the propriety of passing that original bill, whether he was opposed to it or not, it seems to me that the bill having been passed and having become a law, this bill would necessarily commend itself to him as a measure of justness and fairness to carry out what was really the intent of that provision and to prevent doing injustice to a small class of officers, especially as the bill itself will not cost much. It provides for the increase of pay only of a few men who are overlooked by provisions of the amendment, who were included within the spirit of it, and I want to say here that I talked with Mr. Hull, who was the mover of that amendment, about that bill, and he told me that he thought it was right and fair.

Mr. ROBERTS. How many of these officers are there?

Mr. HERBERT. Fifteen rear-admirals and 3 commodores. At the time I talked to Mr. Hull I did not know that the provisions of the bill would really include these, but I see that they are included. These 15 rear-admirals are on the average 80 years old. They were retired prior to 1899, and of course when you take the retired age, 62, and add 18 years to it they range from 70 years up to 84. They will soon die off.

The personnel act of 1899, relating to the Navy, provided that naval officers should receive "the same pay and allowances as are or may be provided by and in pursuance of law for the retired officers of corresponding rank in the Army."

That act also provided for an increase, on retirement of naval officers thereafter who had creditable records during the civil war, of one grade in rank and pay on retirement. It further provided

that there should be no change in the pay of naval officers already on the retired list.

Quite a number of naval officers had been retired under the personnel act, receiving an increase in grade and pay, when Congress passed for the benefit of the Army, April 23, 1904, an act which provided for an increase of one grade in rank and pay of army officers who had creditable records during the civil war, and this act included those on the retired list as well as those on the active list.

As an act of justice to the naval officers on the retired list who had creditable records and had been retired prior to the personnel act of 1899, the naval appropriation bill of last session came back from the Senate to the House with a provision which was intended to equalize the naval officers who had such creditable records and who had been retired prior to 1899, with their comrades with like records who had been retired since 1899, and with the army officers who on the retired list had received the benefits of such promotion under the act of 1904.

When the appropriation bill had come back from the Senate and was before the House at the last session, Mr. Hull, chairman of the Military Committee of the House, moved an amendment the purpose of which, as he stated on the floor, was to confine the naval officers to such benefits as, and no more than, had been conferred on army officers under the act referred to. It was the purpose of the amendment, as it evidently was the intention of the House, to exactly equalize the two branches of the service in this regard, and so put an end to all questions that might be raised as to inequality. While that Hull amendment was in conference I called your attention, Mr. Chairman, to the fact that the wording of the amendment, although it was well drawn and in the main effected its purpose, nevertheless in some few particulars—important, however, to those affected—failed to carry out the intention to equalize the two branches of the service by providing increased pay and rank for officers who had creditable records during the civil war. You stated to me at the time it was impracticable to have the provision amended in conference, and that the proper course would be, after studying the bill during the recess of Congress, to ascertain what were its real defects and report them to you, or your committee, at this session of Congress, when they could be taken up and a proper remedy applied after due consideration. The defects of the bill are not many, and I venture to think that they are all now before you. The first of these relates to the pay of 15 rear-admirals and 3 commodores.

The keynote of the Hull amendment was in this: That whereas the army act of 1899 had confined advancement in rank and pay on the retired list to such officers as were below the grade of brigadier-general, the act then being passed for the benefit of the Navy should limit promotions in rank and pay to those not above the grade of captain, which in the Navy corresponds to the rank of brigadier-general in the Army. This was the intent of Congress, and the amendment now before you (which is House bill 22129) does not provide for any promotion, and will not be a precedent. It affects only the pay of 3 commodores and 15 rear-admirals, and the intent of the Hull amendment was to treat all officers of the Navy and of the Army who had creditable records during the civil war exactly alike both as to rank and pay. The personnel act of 1899, which

initiated the idea of putting the pay of the two branches of the service on the same footing, had provided that officers of the Navy should receive "the same pay and allowances as are or may be provided by and in pursuance of law for the retired officers of corresponding rank in the Army." The 3 commodores on the retired list of the Navy who had creditable records during the civil war now rank, without any promotion, as brigadier-generals, and the 15 rear-admirals on the retired list having a like creditable record now rank as major-generals, and these are the only officers, either in the Army or Navy, who do not get the pay corresponding to their rank.

Many of the junior officers were during the civil war merely mid-dies, although they were in active service. Some of these officers for whom this increase is asked commanded ships at the battle of Mobile and the battle of New Orleans and the other famous battles of the civil war. The amount required annually to give them this increased pay would be less than \$20,000, and this amount will year by year decrease, as all these old veterans must soon die off. Think what is the expectation, according to the Carlisle tables, of officers who would average about 77 years old. They will die in a few years. Let me add that Secretary Bonaparte, on page 16 of his recent report, in effect recommended this bill when he said as follows:

The Department's attention has been called by certain of the older rear-admirals on the retired list to the fact that, owing to the provision in the personnel bill that the pay of officers retired before its passage should not be increased, they receive only 80 per cent of the pay of officers of the same rank who have been retired since its enactment. While it can not be considered a grievance for one officer that a brother officer receives increased pay, his own not being diminished but remaining as it was previously, there is still something invidious in an apparent discrimination of this nature; and, in view of the fact that the number of these retired rear-admirals is small, that they are the oldest officers of their rank in the service, and that they are excluded from the provision attached to the last naval appropriation bill allowing advancement in rank to officers already on the retired list, I recommend a careful consideration of their application by the Congress.

MR. ROBERTS. Mr. Herbert, have you the act referred to here, the bill referred to here?

MR. HERBERT. Yes; here is the bill. I am going to read to you. This is the bill that Mr. Foss, the chairman, introduced:

(H. R. 22129.)

Be it enacted, etc., That the provisions of the act making appropriation for the naval service, approved June twenty-ninth, nineteen hundred and six, which provides for the promotion of certain officers on the retired list, be amended by adding thereto the following:

"Provided, That officers of the Navy above the grade of captain, who served with credit in the regular or volunteer forces during the civil war, prior to April ninth, eighteen hundred sixty-five, otherwise than as cadets, and were retired prior to June thirtieth, eighteen hundred and ninety-nine, on account of wounds or disability incident to the service, or on account of age, or after forty years' service, shall receive the same pay and allowances, from June twenty-ninth, nineteen hundred and six, as are or may be provided by or in pursuance of law for the retired officers of corresponding rank in the Army."

That is the bill that was introduced by the chairman of this committee. I had a conference with him and prepared the bill, and he looked over it and introduced it for your consideration and his. Now, I supposed at the time when I drew the bill that that applied only to these 15 rear-admirals, but on thinking it over, and on my atten-

tion being called to the fact by a member of this committee that the 3 commodores—and there are only 3 on the retired list who served during the civil war—felt themselves slighted and felt that injury had been done to them because they were not promoted as others were, and on studying their pay I found this to be the fact in regard to that, just as it is with regard to the admirals. These 15 admirals are paid now according to what was the pay allowed admirals prior to the personnel act of 1899; that is the act which, as I have stated here, equalized the pay of the Army and Navy.

The intent of this bill is to give them the pay that corresponds to their rank. Their rank at the time they were retired and their rank now is that of major-general—admiral; and yet they are getting the pay of the old admiral according to the Navy and not getting the new pay that all others get and which their juniors, the very men that they commanded during the civil war, are getting and which they were getting at the time they had this creditable service. And this provides, not for their promotion at all, but that they shall only get the pay that corresponds to their rank.

That same provision applies to commodores. They are getting the pay of commodores, and that pay was fixed by law prior to the personnel act of 1899. That personnel act, which equalized the pay of the Army and Navy, gave to brigadier-generals and to junior admirals the pay of brigadier-generals. These commodores are not getting that pay. This act would give them the rank—

Mr. ROBERTS. Let me ask you right there, in dollars and cents what pay are the 3 commodores now getting?

Mr. HERBERT. They are getting thirty-one hundred and something. They will get \$375 more.

Mr. ROBERTS. Under the provisions of this act they will get \$375 more?

Mr. HERBERT. Yes; \$375 more apiece.

Mr. ROBERTS. What is the exact amount that the 15 rear-admirals are drawing?

Mr. HERBERT. I think they are getting three-fourths of the pay of a major-general—not of a major-general, but three-fourths of the pay of an admiral as it existed prior to the act of 1899; and their pay will be increased by about \$1,000 when it is increased to the pay of a major-general. The pay of these commodores would be increased by \$375 each. The pay of the whole 19 would be only about \$20,000.

Mr. ROBERTS. What rank do these commodores have?

Mr. HERBERT. The relative rank of a brigadier-general.

Mr. ROBERTS. And the admirals have what?

Mr. HERBERT. The relative rank of a major-general.

Mr. ROBERTS. Now I understand you that the commodores have the relative rank of brigadier-general, but do not get the pay of a brigadier-general?

Mr. HERBERT. They do not, but they will get it under this bill.

I have added also for your consideration a provision that they be promoted to the rank of junior rear-admiral, which is still the grade of brigadier-general. They are brigadiers now. They will be brigadiers if they are junior rear-admirals. And they will simply get the rank of rear-admiral (junior grade), and be called admiral, and they will not get any more pay. Take Admiral Fithian, for instance. He was the Superintendent of the Naval Academy under me, and one

of the best and most efficient superintendents that the Naval Academy ever had.

Mr. ROBERTS. Would not those men rather keep the old title of commodore?

Mr. HERBERT. No, sir; they would rather be admirals.

Mr. ROBERTS. I think that if I had the title of commodore I would rather have it than that of admiral.

Mr. HERBERT. I am sure that you would like to give this increase of rank, and it will not increase the pay. This provision which I have added to the bill reads:

And provided further. That commodores coming under the provision of this section may, in the discretion of the President, by and with the advice and consent of the Senate, be placed on the retired list of the Navy, with the rank and retired pay of rear-admiral (junior grade), from June twenty-ninth nineteen hundred and six.

There is still that same grade corresponding with the Army.

Mr. ROBERTS. It is the same pay?

Mr. HERBERT. It is the same pay?

Mr. ROBERTS. Exactly the same as the brigadier would get under this bill, under the law?

Mr. HERBERT. Yes.

Mr. ROBERTS. But it simply gives them the title of admiral?

Mr. HERBERT. Yes.

Mr. ROBERTS. Then you would have wiped out entirely that title of commodore?

Mr. HERBERT. You would have wiped out that invidious distinction.

Mr. ROBERTS. You would have wiped out the old title of commodore?

Mr. HERBERT. It still exists on the retired list.

Mr. ROBERTS. Yes; but you would wipe it out there by this?

Mr. HERBERT. Yes. Of course, if there are any commodores there that did not have creditable services during the war, they would still stand as commodores. But these three did have such services.

Mr. ROBERTS. Do you know whether there are any commodores on the retired list that would not be eligible for this increase of rank and pay?

Mr. HERBERT. I understand there are only these three that have creditable records, and I think these are the only ones. Every man in the Navy at that time was required to be at the front, and I do not think there was any man who did not go there, first or last. As I have often argued, and as I argued once before this committee, the Navy was the deciding factor in the civil war—that is, the Navy did a necessary service without which perhaps the Union would not have been saved, and the war would not have been decided as it was. At any rate, I do not wish to go into that now, but it seems to me that would be doing justice to these officers, and would give them the pay corresponding to their grades. They are the only officers in the Army or in the Navy, on the retired list or elsewhere, who are not getting the pay corresponding with their rank—their grading. And this does not change the grade of admiral at all. It changes the grade of these three commodores, but it puts them in as junior admirals, simply gives them the empty title and leaves them with the same pay.

Gentlemen, it seems to me that under the circumstances, this bill having been passed at the last session and these invidious distinctions, as they are called here by Secretary Bonaparte, having been made inadvertently, this provision ought to be put into the bill and into the naval appropriation bill, and I hope if it is put there that there will be not even a point of order made upon it. But if a point of order should be made upon it, your putting it there would be an indication to the Senate committee that you had considered this bill and that you favored it, and that you were in favor of doing justice to these people.

The CHAIRMAN. I would just like to ask one question, Mr. Secretary, if you are through?

Mr. HERBERT. Yes.

The CHAIRMAN. I would like to ask whether the brigadier-generals of the Army who served during the civil war were retired as major-generals?

Mr. HERBERT. No, sir; they were not. That is the keynote of the whole business, that they did not promote anybody that was above the grade of captain.

Now, if you think that last provision about the commodores might prove a precedent for some army officer saying, "I want the rank of major-general without the pay," you can simply strike that out; but the first part of this bill gives to these commodores the pay corresponding to the rank of major-general, it gives them \$375 apiece additional.

I want to say again, there are some other small cases of assistant engineers whose promotion has been deferred and who have been omitted by this act. There are six or seven of them, but altogether it will not amount to very much. I am not prepared to go on with a statement of their cases, but we will have bills introduced and referred to you, and we have already some of the bills that have been introduced, and we have precedents to show that they come within the spirit of this act. Outside of these there are none that I know of. Nearly all of the officers of the Navy have been in correspondence with me or my firm since this bill was passed, and I think that I can safely say that only six or seven, and they are engineers, whose increased pay would be very little, will have any cause of complaint. I will put these cases hereafter; but this one seemed so plain, and this provision is so short, that I hope, gentlemen, you will not only approve the bill, but put it upon the appropriation act. There is no reason that I can see why it should not be done. I am very much obliged to you, gentlemen, and if you have no questions to ask me, I shall simply thank you and retire.

(Adjourned.)

[No. 16.]

APPROPRIATION BILL—CONTINGENT EXPENSES, NAVY DEPARTMENT—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, January 9, 1907.

DEAR SIR: In the legislative act approved January 22, 1906, the following provision appears under "Contingent expenses, Navy Department:"

For additional amount for the objects mentioned in the foregoing paragraph and in lieu of expenditures heretofore made therefor from general appropriations for the naval establishment, twenty-six thousand dollars; and hereafter it shall not be lawful to expend for any of the offices or bureaus of the Navy Department at Washington any sum out of appropriations made for the naval establishment for any of the purposes mentioned or authorized in the said foregoing paragraph.

For the information of the Committee on Appropriations the Department incloses herewith a copy of a decision of the Comptroller of the Treasury, dated December 24, 1906, which makes of no effect the above provision, so far as the Bureaus of Steam Engineering and Construction and Repair are concerned.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. JAMES A. TAWNEY,
*Chairman Committee on Appropriations,
House of Representatives, Washington, D. C.*

TREASURY DEPARTMENT,
OFFICE OF COMPTROLLER OF THE TREASURY,
Washington, December 24, 1906.

SIR: I have received your letter of November 21, 1906 (22383-5), in which you submit a question as follows:

There is transmitted herewith a requisition, which has been submitted to the Department for approval under the appropriation "Contingent expenses, Navy Department, 1907," for one copy of "Forest Mensuration," estimated cost, \$4.

As this publication is a "book of reference," its purchase from the above-mentioned appropriation is prohibited by the provisions of the act of March 15, 1898, relative to the purchase of books for the use of the Executive Departments.

I have the honor, therefore, to request a decision as to whether or not this publication may be purchased from the appropriation "Construction and Repair, 1907" (Naval act, June 29, 1906), under the following clause:

"Construction and Repair of Vessels * * * incidental expenses for vessels and navy-yards, inspectors' offices, and Bureau, such as advertising, foreign postage, telegrams, telephone service, photographing, books, professional magazines, plans, stationery, and instruments for drafting room, seven million six hundred thousand dollars."

In this connection, attention is invited to your decision of the 14th instant, in which you concurred in the opinion of the Department that the words "and the bureau," appearing in the appropriation "Steam machinery, 1907," referred to the Bureau of

Steam Engineering at Washington, and also to your decision of July 31, 1906, in which you held that the purchase of certain periodicals for the use of the Bureau of Construction and Repair from the appropriation "Construction and Repair, 1907," was not authorized.

A decision is also requested as to whether or not advertising, foreign postage, telegrams, telephone service, photographing, books, and professional magazines, may be paid for from naval appropriations by those bureaus of the Navy Department whose appropriations make specific provision therefor.

In the act of June 29, 1906 (34 Stat. L., 573), from which you quote the appropriation for construction and repair of vessels, there is also, on page 583, the following clause:

That no part of any sum appropriated by this act shall be used for any expense of the Navy Department at Washington unless specific authority be given for such expenditure

In the act of June 22, 1906 (34 Stat. L., 427), there is the following appropriation for the contingent expenses of the Navy Department:

Contingent expenses, Navy Department: For professional and technical books and periodicals for Department library, two thousand dollars.

For stationery, furniture, newspapers, plans, drawings, drawing materials, horses and wagons, to be used only for official purposes, freight, expressage, postage, and other absolutely necessary expenses of the Navy Department and its various bureaus and offices, fourteen thousand dollars.

For additional amount for the objects mentioned in the foregoing paragraph and in lieu of expenditures heretofore made therefor from general appropriations for the naval establishment, twenty-six thousand dollars: and hereafter it shall not be lawful to expend, for any of the offices or bureaus of the Navy Department at Washington, any sum out of appropriations made for the naval establishment for any of the purposes mentioned or authorized in the said foregoing paragraph.

It is to be noticed that this act quoted was passed at an earlier date than the act containing the appropriation for construction and repair of vessels.

While the appropriation for contingent expenses of the Department very clearly indicates the intention that that appropriation shall be used for all contingent expenses of the Department and its various bureaus and offices, and that none of the general appropriations for the naval establishment shall be used for any of the purposes mentioned or authorized in the appropriation for contingent expenses of the Department, yet in the appropriation for "Steam engineering" there is provision for incidental expenses of the Bureau; and as held in the decision of this office of November 14, 1906, the fact that the words "and the Bureau" were included justified the use of that appropriation for books for the Bureau of Steam Engineering in the Navy Department.

In the appropriation "Construction and repair of vessels, 1907," the words "and Bureau" are also used. It provides for incidental expenses, and names certain particular expenses, beginning the enumeration thereof with the words "such as." This appropriation is, in my opinion, applicable to the payment of the incidental expenses of the Bureau of Construction and Repair.

The intention of Congress in increasing the amount in the second paragraph of the appropriation for the contingent expenses of the Navy Department from \$14,000 to \$40,000, and the direction that the general appropriations for the naval establishment should not thereafter be used to pay contingent expenses of bureaus and offices in Washington, is plainly evident from the act of June 22, 1906. But the intention of Congress to make a partial exception in the case of

the Bureau of Steam Engineering and the Bureau of Construction and Repair is equally plain in the language used in the later act—that of June 29, 1906.

It is to be noticed that in the last clause in the act of June 29 an exception is made to the prohibition against the use in the Navy Department of any of the appropriations made in that act; and by naming the bureaus in two of the appropriations such appropriations come within the class of those referred to in the exception, and specific authority for such expenditures is given.

So far as the Bureaus of Construction and Repair and of Steam Engineering are concerned it is therefore held that their appropriations for incidental expenses are available exclusively, and that the appropriation for contingent expenses of the Navy Department is not available for any of the incidental expenses of these two bureaus.

The book to which you refer may therefore be properly purchased and paid for out of the appropriation "Construction and repair of vessels, 1907," as specific provision is therein made for "books."

In reply to your second question I will say that the incidental expenses referred to should be paid from the appropriations for the bureaus, so far as such expenses are specifically named in the respective bureau appropriations.

My decision of July 31, 1906, to which you refer, is therefore modified in accordance with the views herein expressed.

Respectfully,

L. P. MITCHELL,
Assistant Comptroller.

The SECRETARY OF THE NAVY.

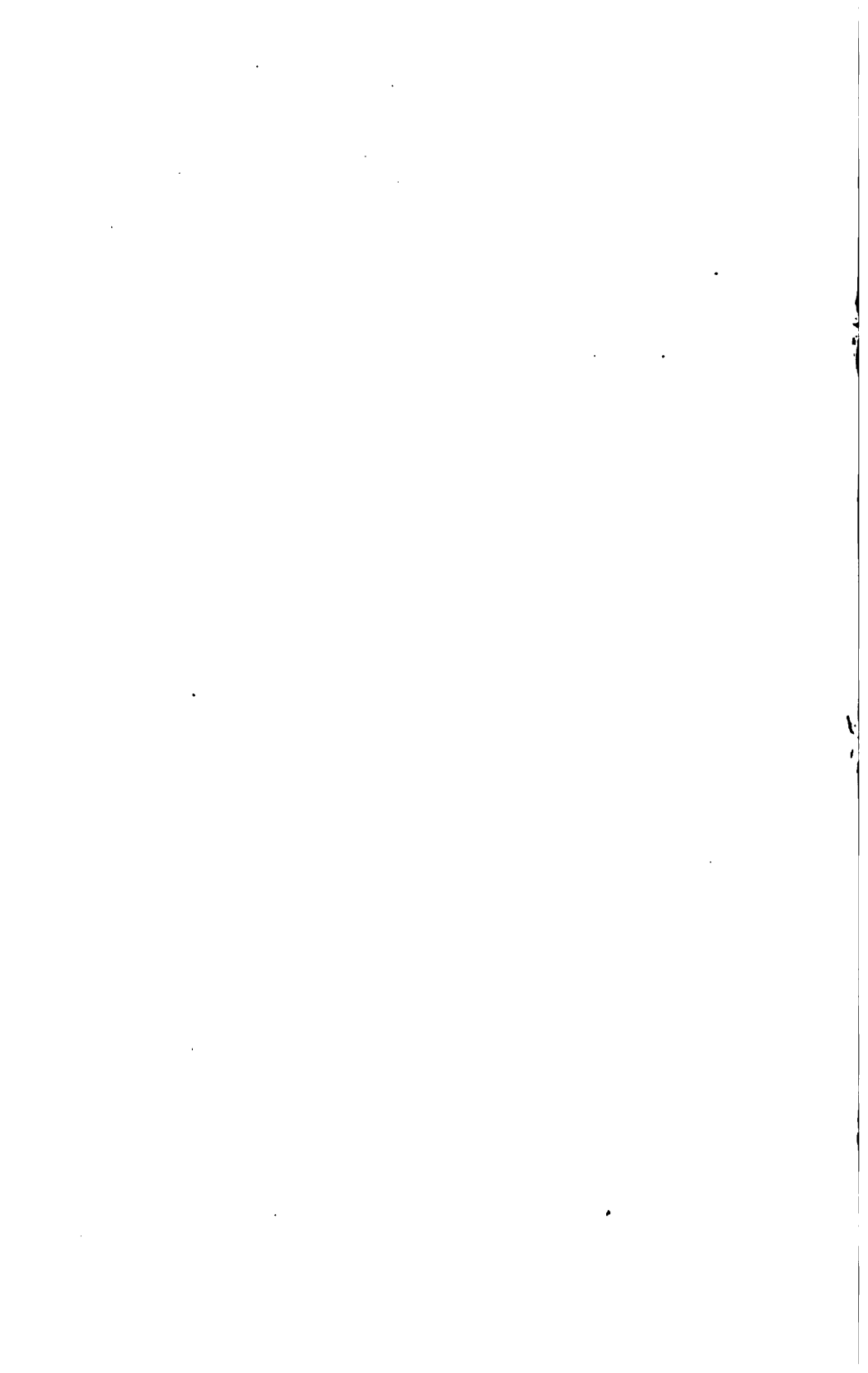
COMMITTEE ON APPROPRIATIONS,
HOUSE OF REPRESENTATIVES,
Washington, D. C., January 14, 1907.

MY DEAR MR. FOSS: The inclosure from the Acting Secretary of the Navy explains itself. You will doubtless recall your conference with myself and other members of the Committee on Appropriations last session, and our concerted action then toward preventing duplication of appropriations and consequent extravagance in expenditures. It seems that the legislation enacted in the Naval act, and in the legislative, executive, and judicial act for that express purpose is, in the superior wisdom of the accounting officers, to be of little avail unless the Committee on Naval Affairs will omit from the appropriation clauses for "Steam Engineering" and "Construction and Repair of Vessels," respectively, the words "and the Bureau" and "and Bureau."

Yours, very respectfully,

J. A. TAWNEY,
*Chairman, Committee on Appropriations,
House of Representatives.*

Hon. G. E. FOSS,
*Chairman, Committee on Naval Affairs,
House of Representatives.*



[No. 17.]

**APPROPRIATION BILL—PAY OF THE NAVY—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, December 22, 1906.

SIR: The Department is in receipt of a communication from the Bureau of Navigation, inviting attention to the fact that under a decision of the Comptroller of the Treasury (Comp. Dec., vol. 12, p. 291), rendered November 13, 1905, officers of the Navy serving on shore with troops are held not to be entitled to commutation of quarters.

The Bureau says:

The effect of this decision is to work a special hardship on officers who are ordered on shore duty for service with enlisted men, as the deprivation of commutation of quarters, to which such an officer has hitherto without question been entitled, will result in a considerable pecuniary loss. The Department will itself be subjected to some embarrassment in issuing orders of this character, owing to their undesirability, and to correct what it considers an injustice to certain officers, the Bureau urgently recommends that Congress be requested to insert the following language in the estimate for "Pay of the Navy," after the words "including boatswains, gunners, carpenters, sailmakers, warrant machinists, pharmacists, and mates, and also naval constructors and assistant naval constructors:"

"For hire of quarters for officers serving with troops where there are no public quarters belonging to the Government, and where there are not sufficient quarters possessed by the United States to accommodate them, or commutation of quarters not to exceed the amount which an officer would receive were he not serving with troops."

No increase in the estimate need be made, as the effect of the new provision will only be to restore the conditions existing before the decision of the Comptroller, and permit the allotment to an officer serving on shore duty with troops of quarters to which his rank and duty entitle him.

Concurring in the views expressed by the Bureau in the foregoing letter, the Department commends this request to favorable consideration by the committee.

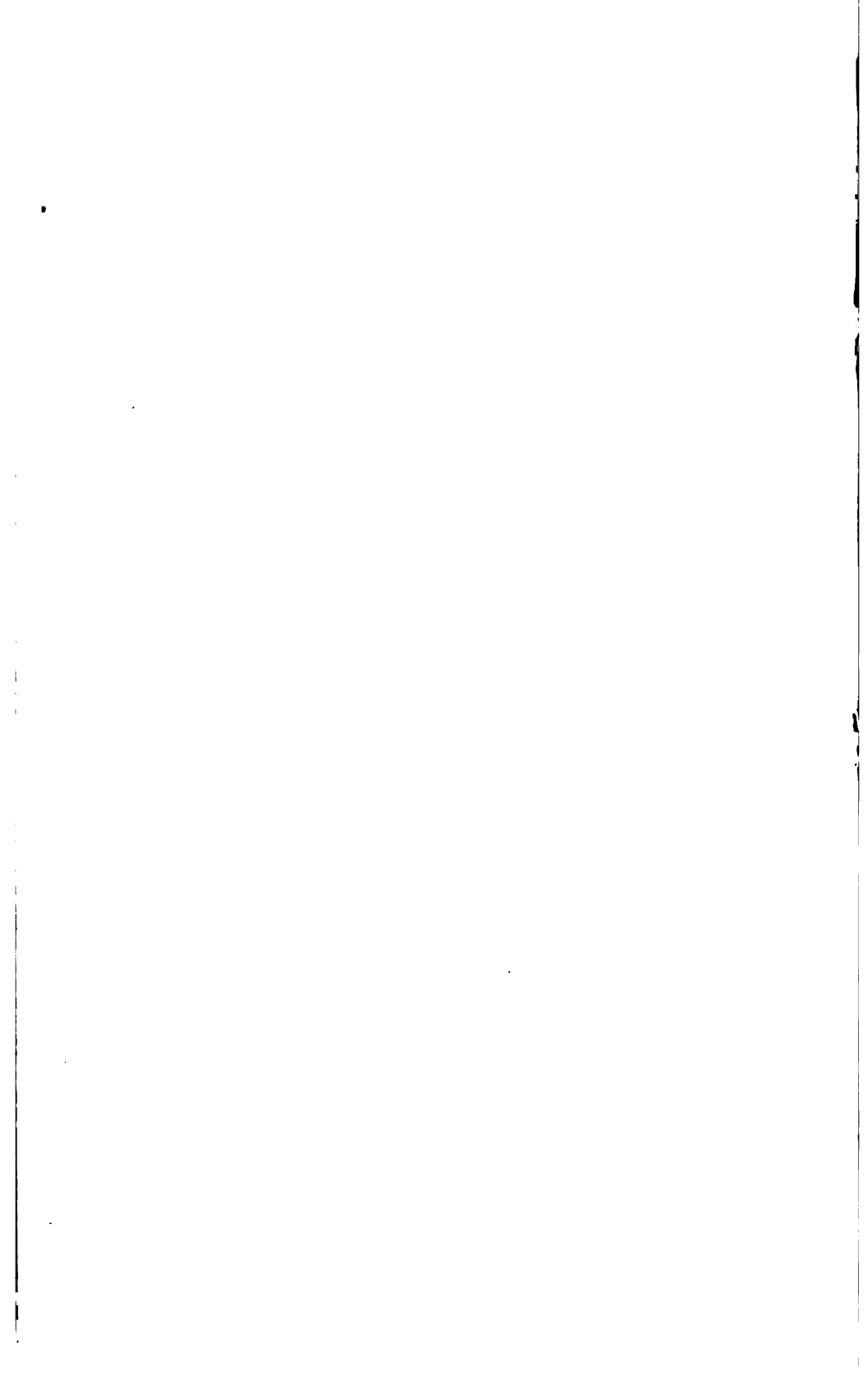
Very respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

Draft of clause, the insertion of which is suggested in the pending naval bill, under the heading "Pay of the Navy," after the words "including boatswains, gunners, carpenters, sailmakers, warrant machinists, pharmacists, and mates, and also naval constructors and assistant naval constructors."

For hire of quarters for officers serving with troops where there are no public quarters belonging to the Government, and where there are not sufficient quarters possessed by the United States to accommodate them, or commutation of quarters not to exceed the amount which an officer would receive were he not serving with troops.



[No. 18.]

APPROPRIATION BILL—PUBLIC WORKS—SECRETARY'S OFFICE—
DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, December 28, 1906.

SIR: Referring to the estimates for Naval Establishment under the head of "Public works, Secretary's Office," subhead, "Buildings for lepers, etc., island of Guam," I have the honor to inclose herewith a copy of a letter dated November 5, 1906, from the commandant of the naval station, island of Guam, addressed to the Secretary of the Navy, in further explanation of the estimates submitted.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

UNITED STATES NAVAL STATION,
Island of Guam, November 5, 1906.

SIR: I have the honor to report that a cablegraphic reply to the Bureau's letter of August 15, 1906, was necessary owing to the fact that no communication could reach Washington from this station in reply thereto before the opening of the next session of Congress.

2. In further explanation of the estimates submitted, I beg to submit the following data:

(a) The Tumon Colony for lepers was established by Captain (then Governor) Schroeder on June 12, 1902, and 12 houses for patients, a house for the superintendent and guards, and a chapel were built. The cost, including purchase of necessary land, amounting to about \$3,800 gold. When it was found that leprosy was on the increase, and that the number of persons suffering from the disease known as "gangosa" was fast becoming a grave menace to the health of the community, 25 additional houses to accommodate 100 inmates were built at a cost of about \$1,500 gold. The total cost of the present colonies is therefore about \$5,300 gold. All of the above expenses were borne by the island treasury, and should be taken over by the Federal Government at a cost of \$5,000.

(b) There are at present at large 100 other persons afflicted with leprosy and gangosa who, in the unanimous opinion of the medical officers, should be immediately secluded, as segregation is the only efficient means of stamping out these awful diseases. Additional land must and can be acquired adjoining the present colony for about \$1,500 gold, and about 25 to 30 additional houses erected thereon. A

large part of this land is fertile, and crops of corn, sweet potatoes, etc., can be raised by the patients, a large number of whom are perfectly able to work, so that after the first year the cost of maintenance can be materially reduced. The cost of maintenance for the first year can not be reduced, for 225 patients, with salaries of superintendent, necessary guards, and repairs, below \$15,000 gold.

(c) As the cost of maintenance of this colony has become a very grave burden to the island treasury, it is requested that the appropriation to be asked for from the next Congress for these colonies be made immediately available.

Very respectfully,

T. M. POTTS,

Commander, U. S. Navy, Commandant.

The SECRETARY OF THE NAVY,

Navy Department, Washington, D. C.

(Bureau of Yards and Docks.)

[No. 19.]

**APPROPRIATION BILL—PROVISIONS, NAVY—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, December 27, 1906.

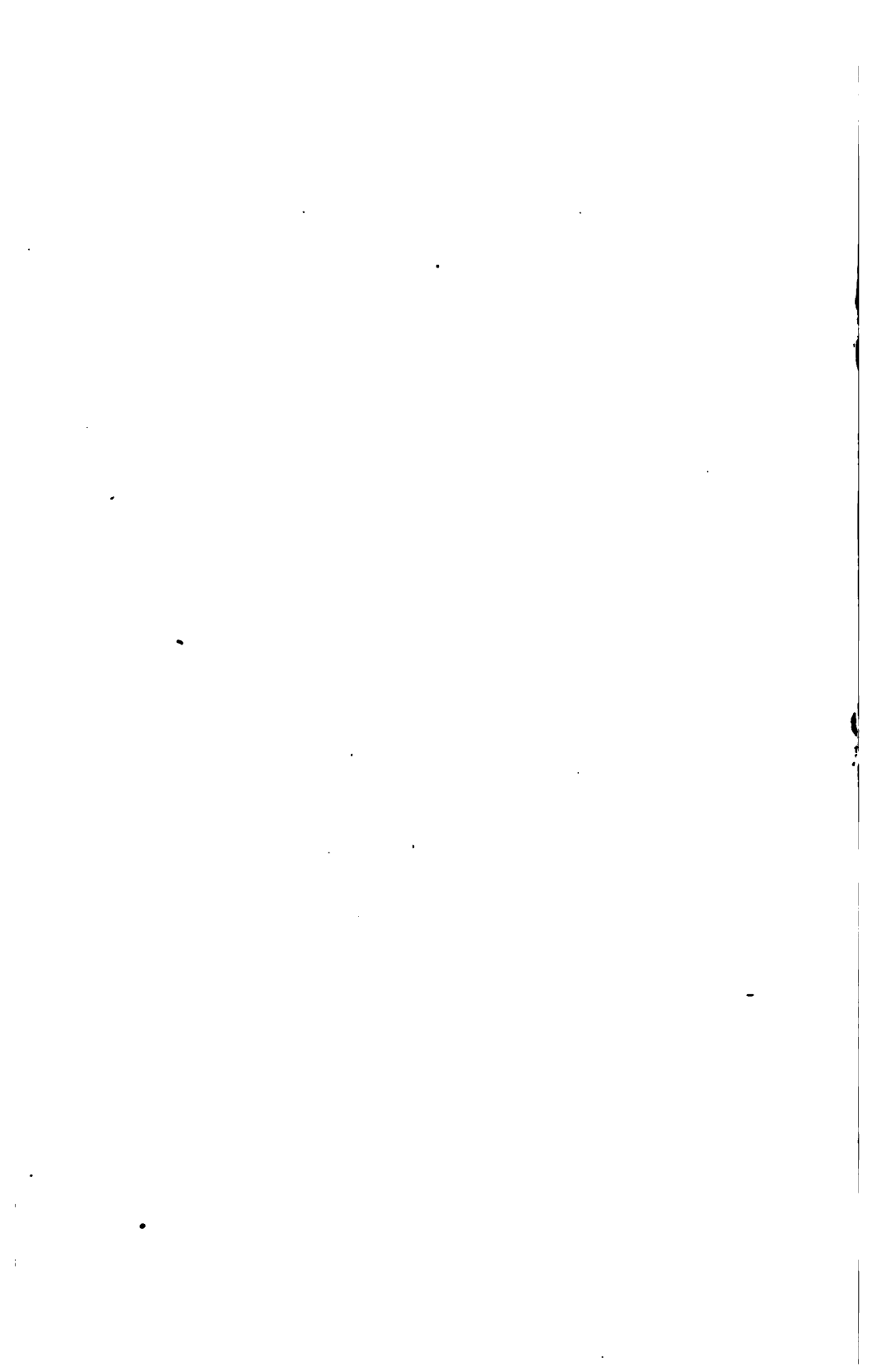
SIR: In connection with the estimates of the Bureau of Supplies and Accounts under the head of "Provisions, Navy," the Department desires to invite particular attention to the following extract from the hearing, December 11, 1906, of the Paymaster-General of the Navy, which statement meets with the Department's entire approval:

I would like to say one thing more. Although I have included, under direction of the Secretary, 75,000 rations for "abandon ship," 75,000 emergency rations, I do not think that that will be sufficient. If we have 30,000 men afloat in the Navy, that will give only 2½ rations to each man, which is not enough; and although I would very much prefer that this should be made a separate appropriation, if the committee is going to allow it, I will say this, that if the committee is not willing to allow that \$32,220 and will incorporate in the general terms of the act the authority to buy them—that is, under the caption of "Provisions"—and will permit the purchase of, say, 100,000, or not more than 100,000, emergency rations, I think I can buy them without any extra sum being appropriated.¶

Respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

The CHAIRMAN OF THE COMMITTEE ON NAVAL AFFAIRS,
House of Representatives, Washington, D. C.



APPROPRIATION BILL—NAVY RATION—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, January 11, 1907.

SIR: The Department is in receipt of a communication from the Bureau of Supplies and Accounts recommending further legislation with respect to the navy ration. The Bureau says:

In order that the authorized navy ration may be made sufficiently elastic to actually subsist the enlisted personnel without resort to commutation, it is recommended that the following paragraph be included in the naval appropriation bill as an addition to section 1581, Revised Statutes:

"Any article comprised in the navy ration may be issued in excess of the authorized quantity, provided there be an under-issue of the same value in some other article or articles."

The proposed change would not in the least increase the cost of the ration now or at any time in the future. It would simply make possible such variation in the exact articles issued as climatic conditions and other varying circumstances incident to the service may from time to time demand, and thereby enable the commissary officer—without incurring any additional expense whatever—to give the men, for example, more meats in high latitudes and more vegetables and fruits in their stead when in tropical waters.

The present authorized ration is altogether sufficient in quantity, quality, and variety, the only fault consisting in a certain lack of flexibility which the enactment of the proposed paragraph would completely remedy.

The practice of variation in issues as herein recommended is already in successful operation in the Army and Marine Corps.

In an indorsement on the communication mentioned above the Bureau of Navigation says:

The Bureau earnestly recommends that an endeavor be made to obtain the legislation asked for by the Bureau of Supplies and Accounts. It is advisable to have a military ration, one that it should not be necessary to commute in part in order to obtain other desirable articles. It is also deemed to the best interests of the enlisted men that commutation of rations should cease.

Concurring in the views expressed by the bureaus, the Department commends the proposed legislation to favorable consideration.

For the convenience of the committee there is inclosed the draft of a clause designed to accomplish the desired end, with the suggestion that, if it meet approval, it be inserted in the naval appropriation bill for the next fiscal year under the heading "Bureau of Supplies and Accounts," subheading "Provisions, Navy."

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEO. EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

That section fifteen hundred and eighty-one of the Revised Statutes, as amended by act of June twenty-ninth, nineteen hundred and six, be, and it is hereby, further amended by adding thereto a paragraph as follows:

"Any article comprised in the Navy ration may be issued in excess of the authorized quantity, provided there be an under issue of the same value in some other article or articles."

[No. 21.]

**APPROPRIATION BILL—MARINE CORPS—TRAVEL EXPENSES—
DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, January 8, 1907.

SIR: The act "making appropriations for the naval service for the fiscal year ending June 30, 1903," approved July 1, 1902 (32 Stat. L., 662), contains the following provision:

That hereafter in cases where orders are given to officers of the Navy or Marine Corps for travel to be performed repeatedly between two or more places in such vicinity as in the discretion of the Secretary of the Navy is appropriate, he may direct that actual and necessary expenses only be allowed.

It has been held that the Secretary of the Navy can exercise the discretion conferred by this paragraph in no cases except where travel is performed "repeatedly" between two or more places, and that when the travel between two places was not repeated mileage only can be allowed. (*Willets v. United States*, 38 Ct. Cls. R., 535; 9 Comp. Dec., 351; 11 Comp. Dec., 46.) In a number of cases officers who were attached to naval traveling recruiting parties during the years 1902, 1903, and 1904 have, under these rulings, been checked the difference between actual expenses, which they drew in obedience to the orders under which they were working and mileage. The practical effect of this was that certain officers, traveling repeatedly between two or more places, were allowed their actual expenses, whereas others who traveled on duty, making equally short trips and having equal expense, were allowed mileage only. In such cases mileage is grossly inadequate, being not a sufficient reimbursement for the outlay which officers making short trips under orders are compelled to make for necessary expenses.

After conference with the accounting officers of the Treasury on the subject the Bureau of Navigation recommends that Congress be asked to provide, by legislation, relief for the officers who have been subjected to such hardship, and submits the draft of a clause intended to accomplish this object in form suitable for insertion in the pending act making appropriations for the naval service. In submitting this matter the Bureau of Navigation adds that the passage of such a provision "will obviate the necessity of presenting a statement of the names or number of officers affected and the amount they expended in excess of mileage, which statement would be impracticable to furnish in time to be presented to Congress at this session."

Congress having by recent appropriation acts (see, for example, act of June 29, 1906, 34 Stat. L., 555) made provision for cases of this character, officers incurring such expenses are and hereafter will be reimbursed in full for their actual expenses. The purpose of the

measure now suggested is merely to cover cases occurring prior to such legislation. Under these circumstances the Department approves the recommendation of the Bureau and commends it to favorable consideration by the committee.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.

The Auditor for the Navy Department is hereby authorized and directed to allow, in lieu of mileage, in the settlement of the accounts of officers of the Navy while on duty with traveling recruiting parties under orders of the Secretary of the Navy, between June second, nineteen hundred and two, and August thirty-first, nineteen hundred and four, actual and necessary expenses incurred by them while in the performance of their duties and approved by the Secretary of the Navy, in all cases, whether the travel was or was not repeated: *Provided*, That where settlements have been made and the officers have been charged the Auditor is hereby directed to resettle said accounts in accordance with this act, and refund to any such officers the amounts they may have deposited, or that may have been deducted from their claims, out of any money in the Treasury not otherwise appropriated.

[No. 22.]

**APPROPRIATION FOR ANCHORAGE—JAMESTOWN EXPOSITION—
DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, January 7, 1907.

SIR: The Department is in receipt of a communication from Rear-Admiral P. F. Harrington, U. S. Navy, senior member of the board on Jamestown Exposition, Norfolk, Va., inviting attention to the necessity of providing by legislation, through joint resolution, by amendment to the sundry civil appropriation bill or otherwise, for the extension of "the use of the appropriation of \$15,000" made "by the act of March 3, 1905, to the placing and maintaining of the temporary and additional anchorage marks" in Hampton Roads.

The work in question is a part of the general plan necessary to regulate and control the anchorages and channels of Hampton Roads and adjacent waters for the purposes of the Jamestown Exposition; to publish an anchorage chart and rules of anchorage and channels, and to place pile beacons and marking buoys for general and, in particular, for naval uses in reserving certain berths for foreign men-of-war and in conservancy of the necessary channels.

It is essential that this appropriation should be available in time to permit the placing of the beacons and buoys by the middle of April next.

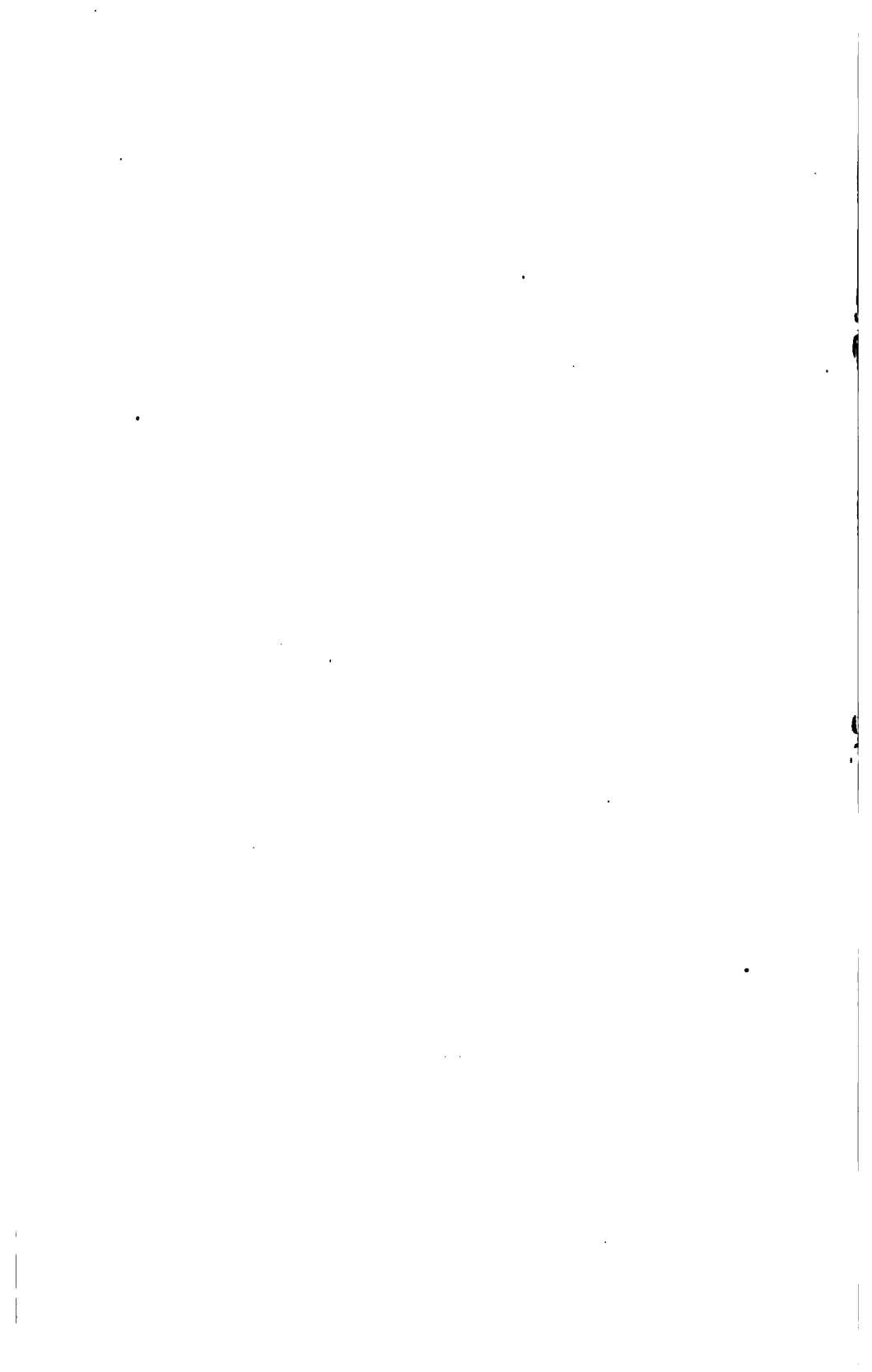
For the convenience of the committee, the draft of a clause extending the appropriation referred to as suggested, in form suitable for insertion in the naval bill or elsewhere, as may be appropriate, is inclosed.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

And the sum of fifteen thousand dollars appropriated by the act of March third, nineteen hundred and five, making appropriations for sundry civil expenses of the Government, for permanent moorings for the use of vessels participating in the international naval, marine, and military celebration, subject to the approval of the Secretary of the Navy, or so much of said sum as may be necessary, may be expended to provide, place, and maintain in Hampton Roads and adjacent waters additional and temporary beacons and buoys to mark the anchorages and channels and for other purposes connected with the use of the anchorage grounds and channels during the Jamestown Exposition.



[No. 23.]

OBSERVATORY CIRCLE—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, January 2, 1907.

SIR: April 24, 1906, a communication was addressed to the committee reciting the history of the establishment, in pursuance of the joint resolution approved August 1, 1894 (28 Stat. L., 588), of "an observatory circle as a provision for guarding the delicate astronomical instruments at the United States Naval Observatory against smoke or currents of heated air in their neighborhood, and undue vibrations from traffic upon the extension of public thoroughfares in the vicinity, and for other purposes," and further legislation, necessary to complete the ownership of the United States in lands embraced within the limits of the observatory circle, was recommended.

April 25, 1906, a bill (S. 5873) was introduced in the Senate by Mr. Hale, the title of the measure being "A bill to provide for the transfer to naval control of that portion of the Industrial Home School property lying within the limits of the Naval observatory circle, and the establishment of the Industrial Home School upon a new site to be selected by the Commissioners of the District of Columbia."

This Department is just in receipt of a communication from the Bureau of Equipment inviting attention to the desirability of the rounding out of the observatory circle, in accordance with the joint resolution of Congress, at as early a date as may be practicable. A copy of a memorandum on the subject, submitted by the Bureau, is inclosed for the further information of the committee.

In view of the fact that the Congress has, by the resolution above cited, determined that the observatory circle should be established, the early passage of the legislation referred to is recommended.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

MEMORANDUM FOR THE SECRETARY OF THE NAVY.

By a joint resolution of Congress approved August 1, 1894, the area of the Naval Observatory was fixed as that of a circle of 1,000 feet radius, with center at clock house, and provisions were made for the acquisition of private property lying within the limits of this circle.

A portion of the District property, 6.764 acres, known as the Industrial Home School, lies within the defined limits of the Observatory. By agreement with the District Commissioners the Senate bill (S. 5873) was framed and submitted.

The chief objects to be obtained by the acquisition to the Observatory grounds of this tract are as follows:

1. To round out grounds as intended by joint resolution.
2. To not only abolish the power house of the home school, but to prevent the possibility of the establishment of industrial buildings in such close proximity to the Observatory, whereby the satisfactory working of the astronomical instruments would be interfered with.
3. To make possible a complete sanitary condition in that vicinity, as recommended by a medical board on November 25, 1903.
4. To permit needed grading in that locality and a proper drainage.

WASHINGTON, D. C., *December 28, 1906.*

[No. 24.]

AMENDMENT TO NAVAL MILITIA BILL (H. R. 10858)—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, December 8, 1906.

SIR: I have the honor to transmit herewith for your consideration and that of the committee a copy of a letter this day addressed to the chairman of the Committee on Naval Affairs of the Senate, suggesting an amendment to the bill (H. R. 10858) to establish a naval militia and define its regulations to the General Government, which measure passed the House of Representatives June 19, 1906.

As fully set forth in the inclosed papers, under provisions of existing law employees of the navy-yard who are members of the militia of the District may be withdrawn from their duties at any time for militia service without consultation with or the approval of the Secretary of the Navy or any person in authority having knowledge of the exigencies of the work upon which such employees are engaged. The cost to the Government of the practice resulting from this condition of the law during the present year is given in report of the commandant and superintendent of the naval gun factory, navy-yard, Washington, dated November 23, 1906, copy herewith.

The amendment proposed is as follows:

Add to section five, at the end of the section and after the words "naval militia," page three, line six, the following:

"*Provided, further, That clerks and other employees of the Navy Department, navy-yards, and stations who are members of the organized militia may, in the discretion of the Secretary of the Navy, and under regulations to be prescribed by him, be granted leave of absence, with pay, while serving with such organizations under orders.*"

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT,
Washington, December 7, 1906.

SIR: The Department has received a letter from the commandant of the navy-yard, Washington, asking, "if some change can not be made in the laws governing the payment for time of employees" of the navy-yard "for the performance of duty in the National Guard or Naval Militia of the District of Columbia."

The statutes directly bearing upon the matter are the following:

Act of May 11, 1898 (30 Stat. L., 404), "To provide for organizing a naval battalion in the District of Columbia," section 4 of which act reads:

That in all matters not otherwise specially provided for the provisions of law which provide for the organization of the militia of the District of Columbia shall apply to the Naval Battalion.

Act of March 1, 1889 (25 Stat. L., 778):

SEC. 41. That the commanding general shall prescribe such stated drills and parades as he may deem necessary for the instruction of the National Guard, and may order out any portion of the National Guard for such drills, inspections, parades, escort, or other duties as he may deem proper. The commanding officer of any regiment, battalion, or company may assemble his command, or any part thereof, in the evening for drill, instruction, or other business, as he may deem expedient; but no parade shall be performed by any regiment, battalion, company, or part thereof without the permission of the commanding general.

SEC. 49. That all officers and employees of the United States and of the District of Columbia who are members of the National Guard shall be entitled to leave of absence from their respective duties, without loss of pay or time, on all days of any parade or encampment ordered or authorized under the provisions of this act.

Act of July 1, 1902 (32 Stat. L., 615):

And provided further, That section forty-nine of "An act to provide for the organization of the militia of the District of Columbia," approved March first, eighteen hundred and eighty-nine, shall be construed as covering all days of service which the National Guard, or any portion thereof, may be ordered to perform by the commanding general.

From an examination of the statutes just quoted it appears that the commanding general has the broad authority to order any portion of the National Guard to perform a variety of duties, such as drills, inspections, parades, escorts, etc., and that, when so ordered, men employed by the Government must be given leave of absence "without loss of pay or time," irrespective of the requirements of the work upon which they may be engaged.

The conditions resulting from this legislation are clearly set forth in the letter of Captain Leutze, commandant of the navy-yard, Washington, above mentioned, a copy of which is enclosed for the information of the committee.

It is by no means the desire of the Department to impose any obstacle to the development and maintenance of the Naval Militia. On the contrary, its policy is to facilitate, as far as it is able so to do, the training and promote the efficiency of that organization. It is believed, however, that this can be done without sacrificing other important public interests, and it seems particularly inadvisable and demoralizing to the work at the navy-yard that men engaged upon urgent duty may be taken out of the control of the commandant, who is responsible for the progress of the work, at any time when the commanding officer may desire their service, without knowledge of or regard to the condition of the work in the departments of the yard where such men may be employed.

In view of the fact that a measure (H. R. 10858) to establish a naval militia and define its relations to the General Government passed the House of Representatives June 19, 1906, and is now before the Senate, I deem it appropriate to bring this matter to the attention of the committee and to recommend that an amendment be inserted in such measure providing that leaves of absence with pay be granted to members of the organized militia when such

members are ordered to duty with their organization, whenever in the judgment of the Secretary of the Navy such action will not be prejudicial to the public interests.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. EUGENE HALE,
Chairman Committee on Naval Affairs, United States Senate.

Draft of amendment to H. R. 10858, suggested by letter of the Secretary of the Navy, dated December 7, 1906, file No. 3125-11.

Add to section five, at the end of the section and after the words "naval militia," page three, line six, the following:

"*Provided further*, That clerks and other employees of the Navy Department, navy-yards, and stations, who are members of the organized militia, may, in the discretion of the Secretary of the Navy and under regulations to be prescribed by him, be granted leave of absence, with pay, while serving with such organizations under orders."

UNITED STATES NAVY-YARD,
Washington, D. C., November 23, 1906.

SIR: I would respectfully ask the Department if some change can not be recommended to Congress in the laws governing the payment for time of employees of this navy-yard for the performance of duty in the National Guard or Naval Militia of the District of Columbia.

2. At present it seems whenever the commanding officer of the District Militia sees fit he can order men from our shops to almost any duty here or elsewhere, no matter how injurious to the Naval Gun Factory and its work, and then have them paid out of our appropriations. In other words, the commanding officer of the District Militia has greater control of these employees than the Secretary of the Navy, the Chief of the Bureau of Ordnance, or the commandant of this navy-yard and station.

3. I believe this to be detrimental to our discipline and also not to the best interests of the Government. Whereas I realize the necessity for a well-organized and regulated militia and believe in the performance of strictly military duty, when such is required, there are many instances in my judgment in which members of the militia are called out from here for the performance of some trivial duty or excuse.

4. On September 20, 1906, in accordance with orders No. 18, paragraph 3, from the headquarters of the District of Columbia militia, two high-class machinists were ordered for duty at the rifle range for four days. I am informed that they were used as markers, telephone men, etc. It seems to me that first and second class machinists should not be called upon to perform duty that ordinary laborers or small boys could have done.

5. Then again men are ordered from here to go out to the rifle range to shoot for prizes and also to the rifle range at Seagirt, N. J., for the same purpose. We had one man ordered to duty in the police court

for one day in connection with a case of destruction of armory property. I would also call attention to the fact that on November 16 I received an order dated November 15 for certain employees (one draftsman and three machinists) to go on a practice cruise for two and a half days on the *Oneida*, commencing November 8; that is, the order was issued seven days after the duty was ordered. The persons concerned, one draftsman and three machinists, were ordered out from this place by telephone (the message came to the office and passes were given the men). I understand that the practice cruise in question consisted in the *Oneida* conveying down the Potomac the U. S. S. *Mayflower*, the latter vessel having the President on board.

6. I would invite attention to the following:

For the regular encampment and practice cruise we paid out \$4,235.46. When the encampment was ordered fifteen helpers, blacksmith, were called out of the forge shop, thus crippling this shop and we were compelled to take in new men through the labor board for temporary employment. Such experiences are not desirable, and they do not add to the efficiency of the shop, but on the contrary detract therefrom.

7. In addition to the regular encampment and practice cruise the following duties were ordered for the entire National Guard by its commanding officer at an expense to us of \$1,430.21: Inspection, small-arm target practice, review by President, participation in Spanish-American war veterans' parade, and rifle matches. Also the following individual duties were ordered: A. B. Weir, duty at at rifle range, four days, \$13.44; Thomas S. O'Halloran, duty at police court, one day, \$2.88; J. H. Mittendorf, Bayard John, E. D. Waller, and Philip Osterhaus, on duty, U. S. S. *Oneida*, two and one-half days, each, \$28.49. There were also several details made before and after encampment to look after packing and shipment of camp equipage, preparation of camp site, etc. The total expense for militia service and orders emanating from militia headquarters to the gun factory for this year to date is \$5,710.48.

8. In conclusion I would state that I have no desire to retard military education, study, and practice on the part of our civilian soldiers and sailors, but I do consider it not consistent with good policy to have a law existing which allows such unlimited authority in the hands of persons not connected with the Government service to order out those who are employed in the several Departments of the Government, and particularly the gun factory, without reference as to the importance of their presence and requirement at their usual places of employment. There should be some limitation of such authority, such as the sanction of the President or the Secretary of War, or some other competent person who is a responsible Government official, and only in cases of emergency—such as riot or insurrection should any such authority be delegated to any person in the District of Columbia not responsible to the Government of the United States. I am of the opinion that in the State militias such provisions exist with reference to the State's authority, and that such a condition without some check, as seems to exist in the District of Columbia, would not be allowed.

9. Under the laws of Congress a per diem compensation is allowed to those not in Government service for the entire year and to those

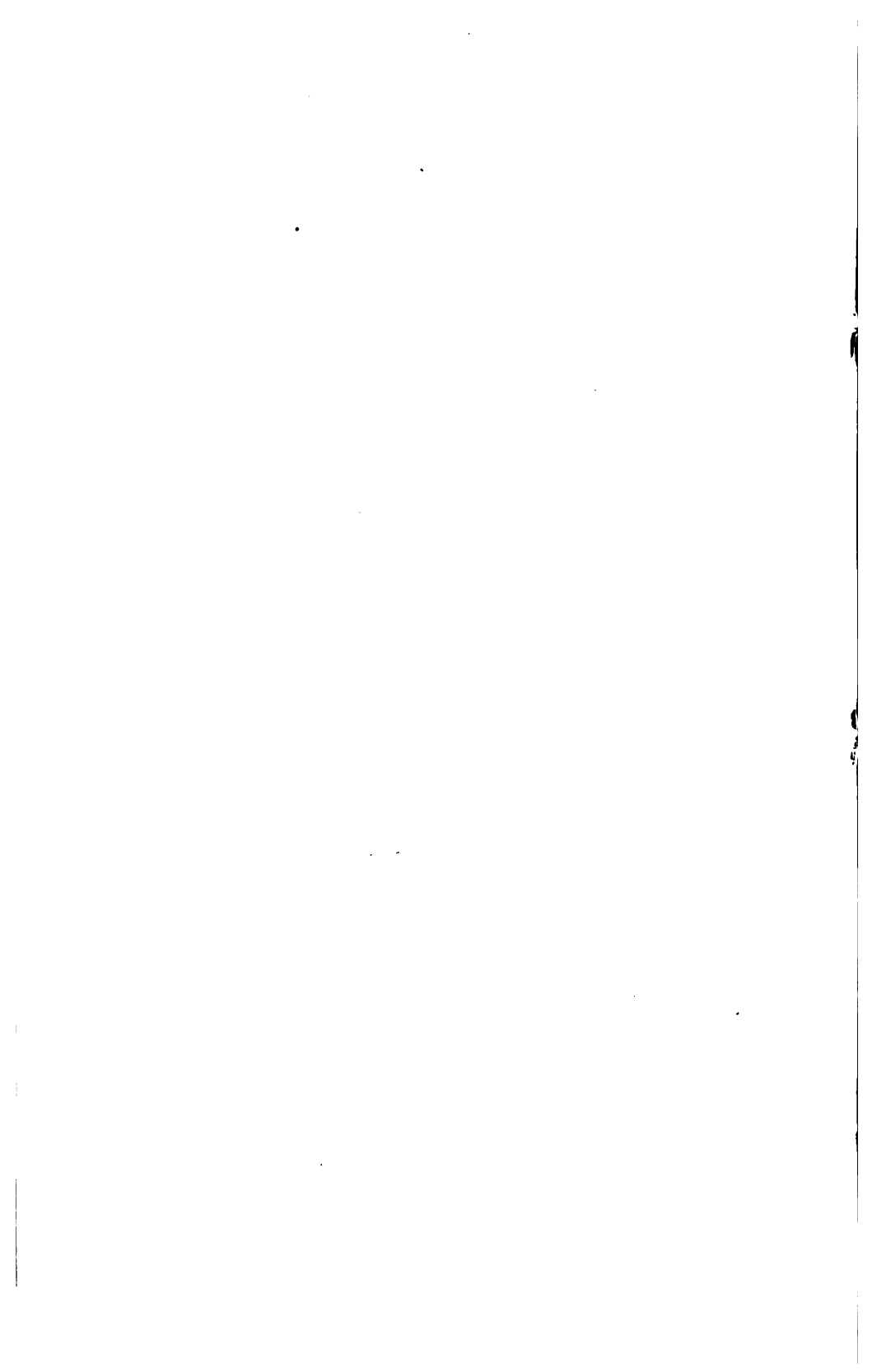
in Government service their usual compensation as employees while on military duty. In addition to these provisions, under the "Dick bill" all hands get Regular Army pay when ordered into camp, etc., in accordance with the provisions of said act.

Respectfully,

E. H. C. LEUTZE,
Captain, U. S. Navy,
Commandant and Superintendent Naval Gun Factory.

The SECRETARY OF THE NAVY,
Navy Department, Washington, D. C.

(Via Bureau of Ordnance.)



[No. 25.]

REGARDING JAMESTOWN EXPOSITION—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, December 22, 1906.

SIR: By act approved March 3, 1905, "to provide for * * * the holding of an international naval, marine, and military celebration in the vicinity of Jamestown, on the waters of Hampton Roads, in the State of Virginia," and for other purposes (33 Stat. L., 1046), the following appropriation was made:

One hundred and twenty-five thousand dollars for the official entertainment of foreign military and naval representatives, of which amount one hundred thousand dollars shall be expended by the commander in chief of the North Atlantic Fleet, under the supervision of the Secretary of the Navy * * * . Fifteen thousand dollars for permanent moorings for the use of vessels participating in said celebration at Hampton Roads, subject to the approval of the Secretary of the Navy. Ten thousand dollars for exhibiting on the scene of the engagement between the *Monitor* and *Merrimac* one or more of the old monitors of that period, in order to illustrate the progress of naval construction.

In response to an invitation from the United States, the principal countries of the world have signified their intention to participate by naval representation in the celebration at Jamestown for which the above provision has been made by Congress. The number of foreign naval vessels visiting Hampton Roads during the continuance of the Exposition will, therefore, it may fairly be assumed, be large, and it is appropriate that the naval authorities of this country be fully empowered to make such regulations as will assure the safe, orderly, and convenient harbor accommodation of foreign fleets and vessels of war, as well as to secure the necessary room and policing of courses upon the occasions of the international naval competitions and exhibition drills that will form a feature of the ceremonies.

I have the honor, therefore, to inclose herewith the draft of a provision conferring upon the Secretary of the Navy the authority requisite to provide suitable anchorage and harbor room for these events. The bill as here submitted follows almost precisely the language of the act of March 3, 1893 (27 Stat. L., 730), by which similar authority was conferred upon the Secretary of the Navy in connection with the celebration of the World's Columbian Exposition.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

A BILL To provide for the harbor accommodation, movements, and anchorage of foreign vessels of war visiting Hampton Roads during the Jamestown Exposition.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Navy be, and he is hereby, authorized and empowered to define and establish suitable anchorage grounds in Hampton Roads

and the adjacent waters during the continuance of the Jamestown Tercentennial Exposition to be held in pursuance of the provisions of the act of Congress approved March third, nineteen hundred and five, and the act of Congress approved June thirtieth, nineteen hundred and six, and the Secretary of the Navy is hereby further authorized to make such rules and regulations regarding the movements of all vessels in the roadstead and harbor named as may be necessary in order to insure the proper and orderly conduct of the naval features of the Exposition and provide for the safety of the vessels participating therein, and such rules and regulations when so issued and published shall have the force and effect of law.

[No. 26.]

PEIRCE, W. W., WAIVING AGE LIMIT OF (H. R. 17875)—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, December 18, 1906.

SIR: The receipt is acknowledged of your letter of the 15th instant, requesting an expression of the views of the Department on the bill (H. R. 17875) waiving the age limit for admission to the Pay Corps of the United States Navy in the case of W. W. Peirce.

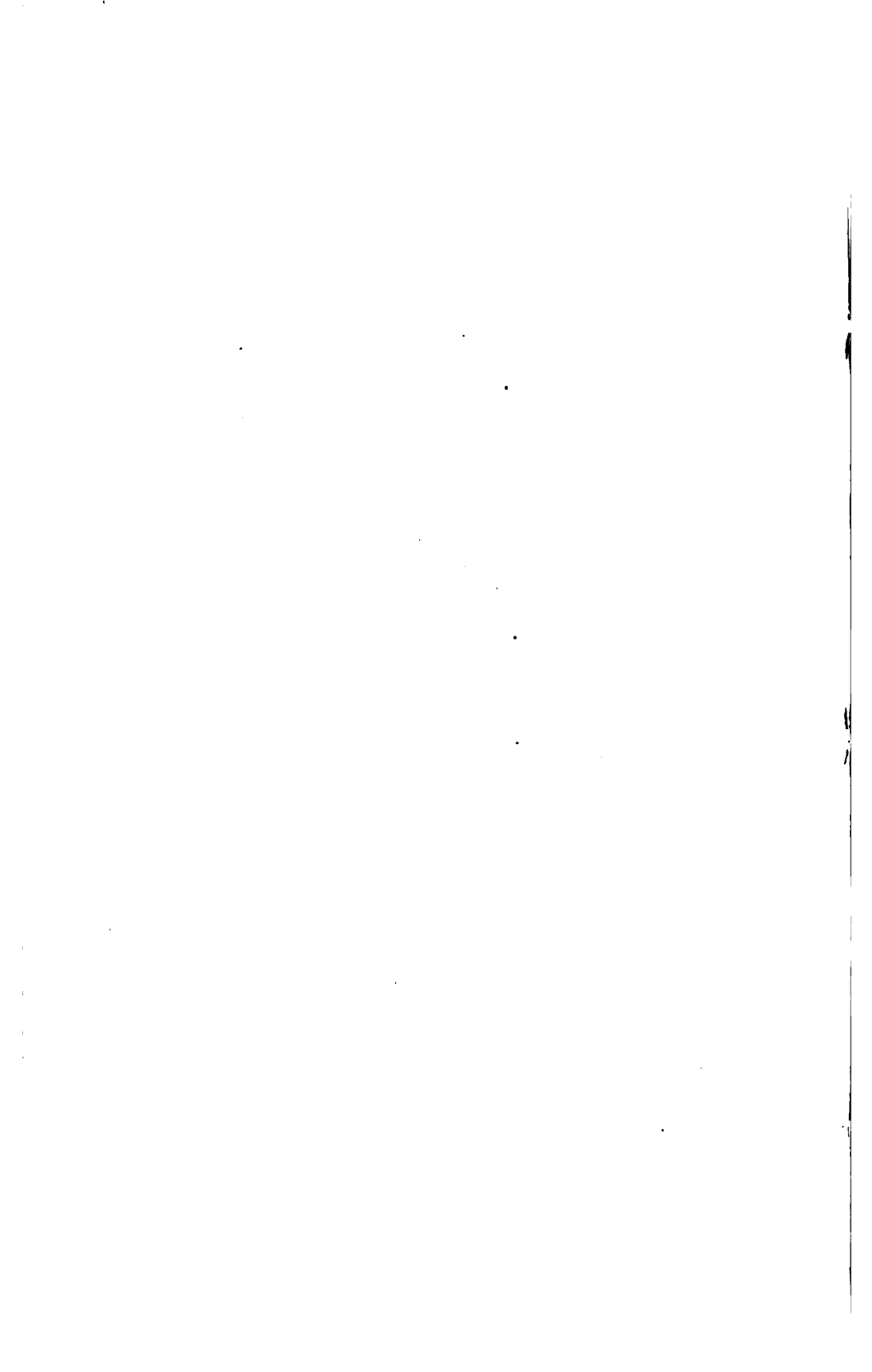
In reply I have the honor to state that in June last, subsequently to the introduction of this bill, Mr. Peirce was permitted by the Department to take an examination for appointment as assistant paymaster, with the understanding that his appointment would depend not only upon his success in such examination, but also upon the passage of the measure. He failed, however, to pass the mental examination, his marks in the subject given the greatest weight—commercial arithmetic and exchange—falling below the required average.

Further action in the case would appear to be a matter for the discretion of the Congress.

Very respectfully,

V. H. METCALF,
Secretary

Hon. GEO. EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*



[No. 27.]

**AUTHORIZING SECRETARY OF NAVY TO ACCEPT GIFT OF SAIL-
BOAT—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, December 17, 1906.

SIR: Miss Jessie Claire McDonald has proffered to the Department, as a gift, a sailboat, to be "about seventeen feet on the water line, of the Boston 'knockabout' type," for the use of the midshipmen at the Naval Academy. The gift is tendered in memory of the late Assistant Naval Constructor Joseph E. McDonald, U. S. Navy, a brother of Miss Jessie Claire McDonald. It is the donor's wish that the boat be named for her deceased brother, and that, as he was senior officer of the cadet battalion, it be placed in charge of the senior officer of the midshipmen at the Naval Academy to be regarded as a reward for attainment of that rank.

As this offer is prompted by motives for which the Department entertains the highest respect, and as there appears to be no reasonable objection to the acceptance of the gift, such action would be taken immediately but for the fact that doubt is entertained respecting the propriety of so doing without the express sanction of Congress.

I have the honor, therefore, to transmit herewith a draft of a proposed bill conferring the desired authority, and to ask that, if the committee concurs with the Department in the matter, passage of such a measure be urged.

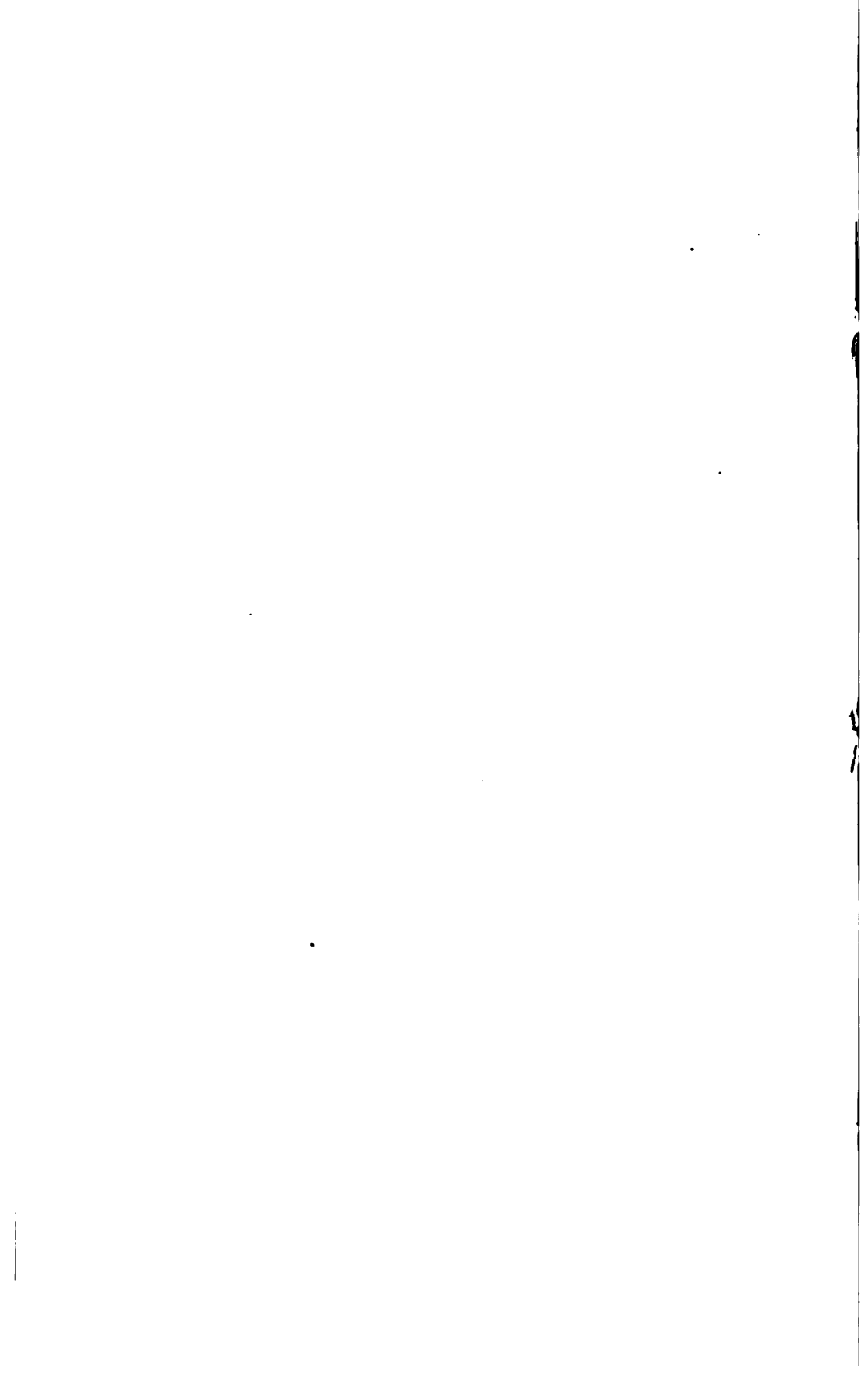
Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

A BILL To authorize the acceptance by the Secretary of the Navy, as a gift, of a sailboat for use of the midshipmen at the Naval Academy.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Navy be, and he is hereby, authorized to accept as a gift from a member of the family of the late Assistant Naval Constructor Joseph E. McDonald a sailboat for the use of the midshipmen at the Naval Academy.



[No. 28.]

**NADDY, PATRICK, TO COMPLETE NAVAL RECORD OF (H. R. 20128)—
DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, December 17, 1906.

SIR: Referring to your communication of the 12th instant, requesting to be furnished, for the use of the Committee on Naval Affairs, in the consideration of the bill (H. R. 20128) to complete the naval record of Patrick Naddy, with the views and recommendations of the Department as to the propriety of the legislation proposed, I have the honor to state that it appears from an examination of the records that Patrick Naddy enlisted in the Navy at New York, N. Y., March 19, 1862, as a first-class boy, for three years; served on board the U. S. S. *North Carolina*, *Galena*, and *Princeton*, and deserted from the last-named vessel June 30, 1863; that he reenlisted in the Navy under the name of James Hoben, April 19, 1864, as a coal heaver, for one year; served on board the *North Carolina*, *Iuka*, and *Proteus*, and was discharged from the service May 4, 1865.

Naddy's case has, on several occasions, been considered by the Department with a view to the removal of the charge of desertion entered on the rolls of the *Princeton* against him and each time decided adversely, owing to the fact that the case is not one in which relief can be granted under the provisions of the act of Congress "to relieve certain appointed or enlisted men of the Navy and Marine Corps from the charge of desertion," approved August 14, 1888, as amended May 24, 1900, because the entry against him being a proper one, the Department was without authority otherwise to remove the charge.

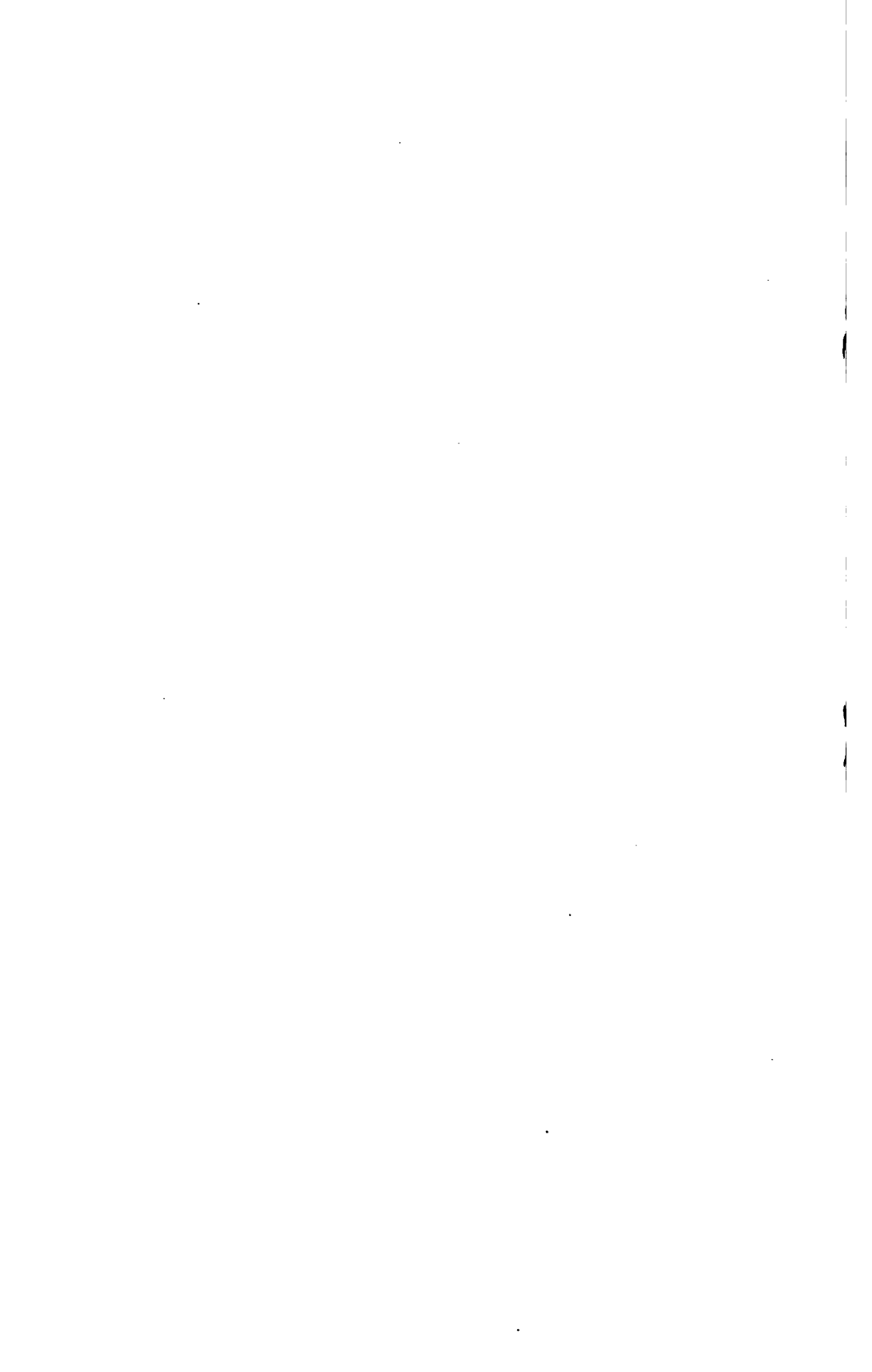
The Department sees no reason for special legislation in this case. The question whether or not such relief should be granted the applicant would appear to be a matter for the determination of the Congress.

In this connection the attention of the committee is invited to the fact that the discharge provided for is described in line 7 of the bill as an "honorable discharge." This term has, under existing law, a special significance in the Navy, and such discharge entitles a man, when issued upon the expiration of an enlistment for four years as a testimonial of fidelity and obedience, to certain pecuniary benefits. It is suggested, therefore, if the committee should determine to report the bill favorably, that the term "discharge," instead of "honorable discharge," be used.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*



[No. 29.]

MAHEGAN, JAMES J., TO CORRECT RECORD OF (H. R. 13719)—
DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, December 18, 1906.

SIR: Referring to your communication of the 15th instant, requesting to be furnished, for the use of the Committee on Naval Affairs in the consideration of the bill (H. R. 13719) to correct the naval record of James J. Mahegan, with the views and recommendations of the Department as to the propriety of the legislation proposed, I have the honor to state that it appears from an examination of the records that James J. Mahegan enlisted in the Navy at New Bedford, Mass., July 11, 1861, as a landsman, for three years; served on board the U. S. S. *Ohio*, *Sabine*, and *Richmond*, and deserted from the last-named vessel August 14, 1863.

On February 13, 1901, the case of Mahegan was considered by the Department with a view to the removal of the charge of desertion entered on the rolls of the *Richmond* against him and decided adversely, owing to the fact that the case is not one in which relief can be granted under the provisions of the act of Congress "to relieve certain appointed or enlisted men of the Navy and Marine Corps from the charge of desertion," approved August 14, 1888, as amended May 24, 1900, because the entry against him being a proper one the Department was without authority otherwise to remove the charge.

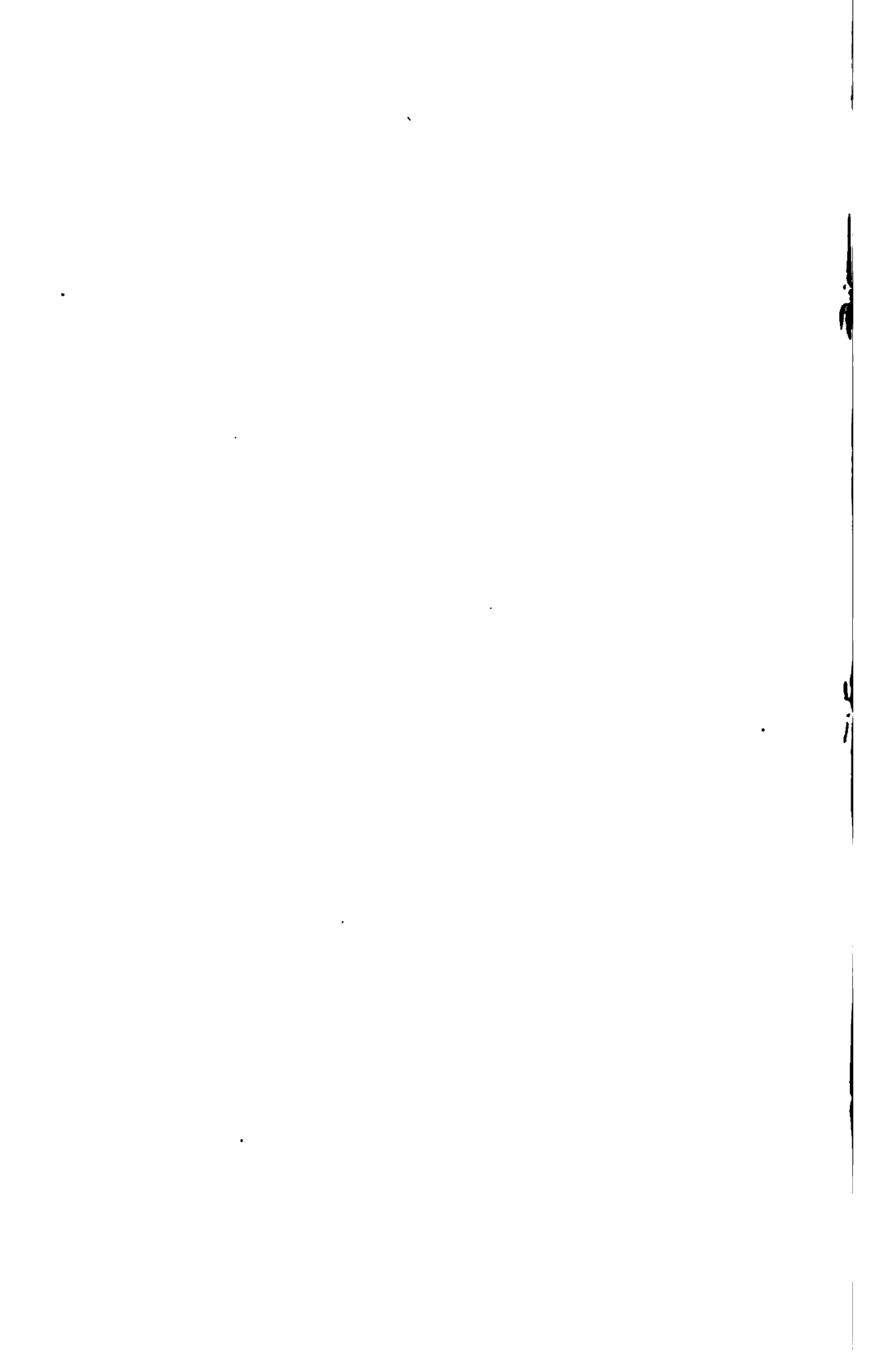
The Department sees no reason for special legislation in this case. The question whether or not such relief should be granted the applicant would appear to be a matter for the determination of the Congress.

In this connection the attention of the committee is invited to the fact that the discharge provided for is described in line 6 of the bill as an "honorable discharge." This term has, under existing law, a special significance in the Navy, and such discharge entitles a man, when issued upon the expiration of an enlistment for four years as a testimonial of fidelity and obedience, to certain pecuniary benefits. It is suggested, therefore, if the committee should determine to report the bill favorably, that the term "discharge," instead of "honorable discharge," be used.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.



[No. 30.]

U. S. S. MICHIGAN CHANGED TO WOLVERINE—DEPARTMENT
LETTER.

NAVY DEPARTMENT,
Washington, January 19, 1907.

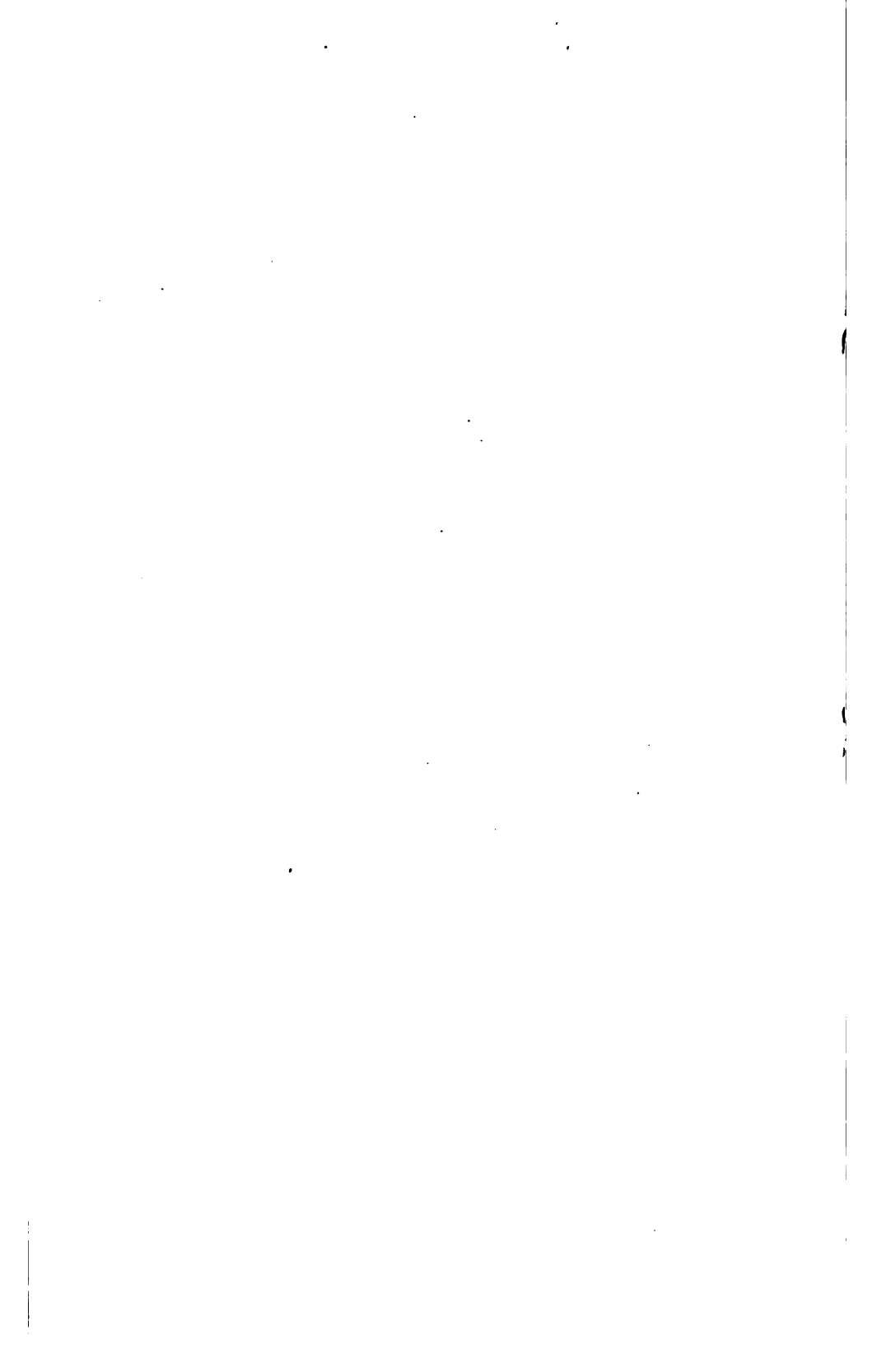
SIR: The annual estimate submitted for the fiscal year ending June 30, 1908, under "Maintenance of yards and docks," contains an item "For rent of wharf and storehouse at Erie, Pennsylvania, for use and accommodation of the U. S. S. *Michigan*." As the name of the U. S. S. *Michigan* has been changed to U. S. S. *Wolverine*, I have the honor to request, at the instance of the Chief of the Bureau of Yards and Docks, that in the naval bill now under consideration by the House Naval Committee the provision above quoted be changed to read: "For rent of wharf and storehouse at Erie, Pennsylvania, for use and accommodation of the U. S. S. *Wolverine*," without any change in the amount of the estimate.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.

(343)



[No. 31.]

BROWN POWDER FOR NAVAL SERVICE—DEPARTMENT LETTER.

DEPARTMENT OF THE NAVY,
BUREAU OF ORDNANCE,
Washington, D. C.

SIR: Referring to your telephone message to the chief clerk of this Bureau, requesting information relative to orders for brown powder for the naval service for the fiscal years from July 1, 1894, to June 30, 1902, the following is the information desired:

Ordered from California Powder Works. Santa Cruz, Cal., at 33 cents a pound.

Fiscal year.	Quantity.	Cost.
	<i>Pounds.</i>	
1894-95	50,000	\$16,500
1895-96	120,000	39,600
1896-97	120,000	39,600
1897-98	932,118	307,599
Total	1,222,118	403,299

Ordered from E. I. Du Pont & Co., Wilmington, Del., at 33 cents a pound.

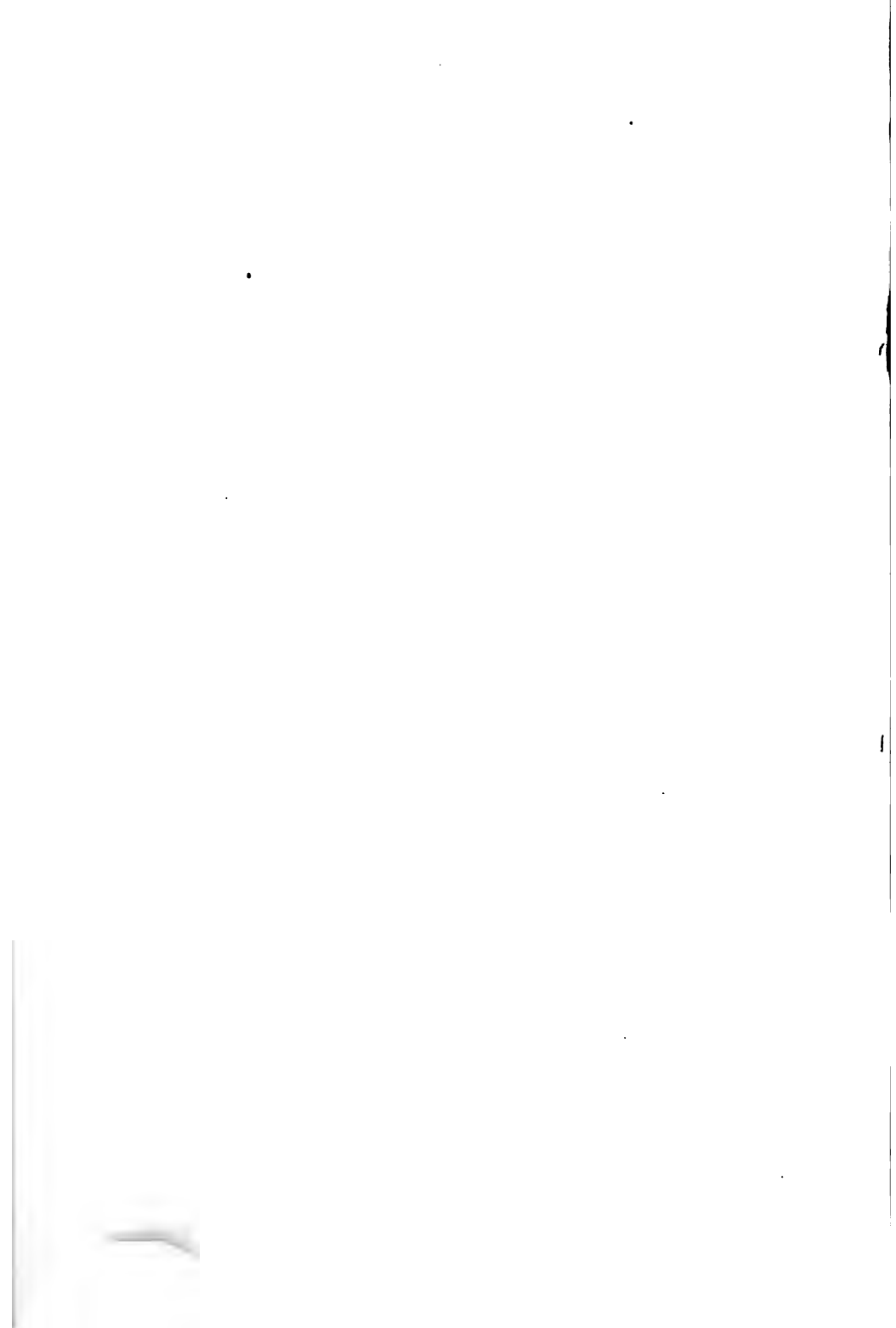
Fiscal year.	Quantity.	Cost.
	<i>Pounds.</i>	
1894-95	540,000	\$178,200
1895-96	495,000	163,350
1896-97	513,000	169,290
1897-98	2,453,000	819,390
Total	4,081,000	1,330,230

Orders for brown powder discontinued in 1898, when smokeless powder was introduced into the Navy.

Respectfully,

N. E. MASON,
Chief of Bureau of Ordnance.

HON. GEORGE E. FOSS, M. C.,
*Chairman Committee on Naval Affairs,
House of Representatives, Washington, D. C.*



[No. 32.]

UNITED STATES NAVAL HOSPITAL CORPS—MEMORANDUM.

A Hospital Corps of not less than 1,000 men is now needed. To enlist and retain such a corps of the desired quality it is believed that greater inducements for continued service must be offered. Unless a good prospect of ultimate promotion with consequent increase in pay be held out as a reward for long and faithful service, the pecuniary advantages and comforts of civil life will continue to outweigh in the minds of ambitious hospital stewards contemplating reenlistment the attractions of the naval service, handicapped, as it is, with the privations and inconveniences of sea duty. The recommendations of the Bureau to increase the warrant grade of the Hospital Corps from 25, now allowed by law, to 50 was approved by the Department and included in the provisions of Senate bill 2206 and House bill 12846 of the Fifty-ninth Congress, first session. The bill, however, failed to receive consideration, though approved by three Secretaries of the Navy and favorably reported by the House Naval Committee. This bill (No. 12846) is now on the Calendar before the House. The same bill (No. 2206) has been read before the Senate and referred to the Naval Committee. The increase in the warrant grade of the Hospital Corps proposed by this bill would encourage the most desirable hospital stewards to reenlist, and the authorization of the grade of chief pharmacist would give pharmacists the opportunity, now enjoyed by boatswains, gunners, carpenters, and warrant machinists, of promotion to the lowest commissioned grade. The Bureau is of the opinion that a Hospital Corps as nearly permanent in organization as can be obtained is needed for the proper care of the sick and injured of the Navy, and that the proposed increase in the warrant grade will favor the accomplishment of this desirable end, and therefore again recommends that the number of pharmacists be increased to 50, that the grade of chief pharmacist be authorized, and that all laws now existent or hereafter to be enacted relating to warrant officers of the Navy be made applicable to them.

The Naval Hospital Corps, since its organization in 1898, has proved a great advance toward providing for the Navy a body of trained nurses and hospital stewards. A constant effort has been made to secure for the corps and retain in the service men of sobriety, intelligence, aptitude, and fair education. It is discouraging to note, however, that a large number of the Hospital Corps do not reenlist, and the Navy thus loses the services of many desirable men who have had four years' training and experience. New enlistments have not been sufficient to fill the vacancies thus created in the corps.

While the demands for men of the Hospital Corps have increased, their number has decreased. In January, 1905, there were 246 hospital stewards, 255 hospital apprentices, first class, and 271 hospital apprentices, a total of 772. In June, 1906, there were 213 hospital stewards, 260 hospital apprentices, first class, and 233 hospital apprentices, a total of 706. This number is too small to provide the medical departments of ships in commission with full complements and at the same time supply the needs of naval hospitals, dispensaries, navy-yards, marine detachments, and recruiting offices.

As present conditions do not attract men of the corps to reenlist, and as the supply of recruits is not sufficient, it is therefore evident that without offering additional inducements in pay and in prospect of promotion it will be impossible to obtain for the corps the requisite number of recruits and retain in it experienced and trained men.

The monthly pay now allowed for hospital stewards is \$60; for hospital apprentices, first class, \$30; and for hospital apprentices, \$20. The pay of the Hospital Corps was fixed by the act of Congress which authorized the corps. Hospital stewards are thus deprived of the benefits of the Executive order of June 26, 1903, increasing the pay of all other chief petty officers of the Navy who qualify by examination for permanent appointment to \$70 a month. For the same reason hospital stewards, hospital apprentices, first class, and hospital apprentices do not receive 75 cents a month in addition to the pay of their rating, which is given to all other enlisted men of the Navy, except mates, for each good-conduct medal, pin, and bar. Furthermore, as the number of pharmacists is limited to 25, the chances of promotion to warrant grade are very small. These disadvantages are naturally sources of dissatisfaction to the members of the Hospital Corps. Actual experience during the past eight years and careful study of the present and future needs of the service have convinced the Bureau that correction of these unsatisfactory provisions of the law and organization of the Hospital Corps are imperatively necessary to secure and maintain a competent and efficient body of men for the care and treatment of the sick of the Navy. The necessity for reorganizing and increasing the efficiency of the Hospital Corps has been fully set forth by the Bureau in three preceding annual reports. The Department has approved the recommendations of the Bureau concerning the corps and has urgently recommended favorable action thereon by Congress. The stationary or diminishing number of the Hospital Corps in relation to the actual and increasing strength of the Navy emphasizes the fact that such organization is becoming daily more imperative, and the Bureau again earnestly recommends that request be made for prompt consideration by Congress of this matter, which is of vital importance to the medical establishment of the Navy.

An organization which will meet present needs, permit ready expansion in the event of war, and secure an efficient naval hospital Corps is, in the opinion of the Bureau, provided for in Senate bill 2206 and House bill 12846, Fifty-ninth Congress, first session, which contains the following provisions: First, that the Hospital Corps of the Navy shall consist of chief pharmacists, pharmacists, chief pharmacists' mates, pharmacists' mates (first class), pharmacists' mates (second class), and hospital apprentices. Second, that the number of chief pharmacists and pharmacists on the active list shall not exceed

50 in all, the pharmacists to be appointed by the President and have the status of warrant officers, with the rank, pay, allowances, and privileges of such; that vacancies in the grade of pharmacist shall be filled from men holding the rating of chief pharmacists' mate, subject to such examination as the Secretary of the Navy may prescribe; that pharmacists shall, after six years from date of warrant, be commissioned chief pharmacist, to rank with, but after, ensign, and shall on promotion have the same pay and allowances as are now allowed chief boatswains, chief gunners, chief carpenters, and chief sailmakers, provided that no pharmacist shall be so promoted until he shall have passed an examination as to his mental, moral, professional, and physical qualifications before a board of officers in accordance with regulations prescribed by the Secretary of the Navy. Third, that the Secretary of the Navy is hereby empowered to enlist or cause to be enlisted as many chief pharmacists' mates, pharmacists' mates, first class, pharmacists' mates, second class, and hospital apprentices as in his judgment may be necessary, and to fix the number and to make such regulations as may be required for their enlistment and government.

Enlisted men of the Navy and Marine Corps shall be eligible for transfer to the Hospital Corps. Fourth, that all necessary hospital and ambulance service at naval hospitals, naval stations, navy-yards, and marine barracks, and on vessels of the Navy and Fish Commission, shall be performed by members of the Hospital Corps, and the said corps shall be permanently attached to the Medical Corps of the Navy and shall be included in the effective strength of the Navy, and shall be counted part of the enlisted force provided by law and be subject to the laws and regulations for the government of the Navy. Fifth, that the pay of chief pharmacists' mates shall be \$70 per month, except when serving under acting appointments, when it shall be \$60 per month; of pharmacists' mates, first class, \$50 per month; of pharmacists' mates, second class, \$35 per month, and of hospital apprentices, \$20 per month, with such increase on account of length of service as is now or may hereafter be allowed by or in pursuance of law to other enlisted men of the Navy; and that all benefits that are now or may hereafter be given by or in pursuance of law to other warrant officers or enlisted men of the Navy shall hereafter be allowed to warrant officers and enlisted men of the Hospital Corps.

Present condition of the hospital corps.

Rate.	Regular stations.	Special stations. ^a	Total stations.	Enlistments.	Short.
Hospital stewards	229	24	253	223	30
Hospital apprentices, first class	270	16	286	280	26
Hospital apprentices	383	45	428	272	156

^a Dental duty, torpedo boats, vessels of the Fish Commission, recruiting stations, and class of instruction.

No allowance is made for the commissioning of new ships or exigencies such as is now the case in Cuba where 20 hospital corps men are stationed.

REASONS FOR PRESENT CONDITION.

1. The rating of apothecary (hospital steward) was established December 8, 1866, with pay at \$60 per month. There has been no legislation increasing this pay since that date.

2. The pay is insufficient and the prospects of advancement, which should be held out as an inducement, are not adequate enough to attract and hold experienced and trained men.

3. The fact that the Hospital Corps is deprived of the benefits of Executive orders increasing the pay of all other enlisted men of the Navy. In connection, it is to be noted that the benefits of added compensation for trained men provided for by the Executive orders of June 26, 1903, and just recently, November 28, 1906, are not shared by the members of the Hospital Corps. It is imperative that legislation be enacted to settle this question of pay in the Hospital Corps at once and for all and give it a merited share in the benefit of Executive orders, which have up to the present time increased the pay of chief petty officers of the line one-fourth above that of the chief petty officers of the Hospital Corps.

ESTIMATED INCREASED COST SHOULD HOUSE BILL 12846 BECOME A LAW.

PHARMACISTS.

(a) Present number with highest pay, total per year.....	\$43,000
(b) With increased number according to bill, including chief pharmacists	75,180
(c) Total increase per year.....	\$32,180

HOSPITAL STEWARDS.

(a) Present number with highest pay, total per year.....	164,160
(b) With total increased pay according to bill.....	166,400
(c) Total increase per year.....	2,240

HOSPITAL APPRENTICES, FIRST CLASS.

(a) Present number with pay, total per year.....	7,260
(b) With total increased pay per year.....	10,690
(c) Total increase per year.....	3,430

Total increased expense for entire corps..... 37,850

NOTE.—This does not represent any increase over the other enlisted personnel, but merely places all on an equality of footing.

BENEFITS FROM PROPOSED REMEDY.

1. To the service:

(a) Will allay serious dissatisfaction among the members of the Hospital Corps.

(b) Will stimulate reenlistments and offer inducements to a class of men (trained nurses) now impossible to induce to enter the service.

(c) Will insure an efficient nursing staff for the service and an intelligent, efficient organization for those important duties of assistant to the surgeon in operations and preventive medicine. The Hospital Corps must be relied upon for all the medical and surgical nursing aboard our battle ships and cruisers; they must be competent to assist in surgical operations and with the technique of antiseptic work, whether aboard ship or on shore. As these men are trained so will our success be in saving life in and after battle. Besides, in preventive medicine, especially in the Tropics, the trained men are invaluable in keeping the personnel in good condition.

[No. 33.]

REGARDING THE ISHAM SHELL.—DEPARTMENT LETTER.

DEPARTMENT OF THE NAVY,
BUREAU OF ORDNANCE,
Washington, D. C., January 16, 1907.

MEMORANDUM IN RE THE ISHAM SHELL.

Hon. G. E. Foss, M. C.,

Chairman Naval Committee, House of Representatives:

1. This is an invention for firing a charge of sensitive high explosive, preferably explosive gelatin, from a gun, the special feature being such an arrangement of the shell as to avoid the explosion of the charge by the shock of firing. The useful effect is expected to be produced by detonation of the charge against the target without penetration.

2. Questions which arise in connection with the invention are:

- (1) The safety of manipulation of the sensitive high explosive.
- (2) Immunity from explosion due to shock of discharge.
- (3) Useful effect as compared with other available means.

3. Experiments have been made with this invention by the War Department since 1898, and are still in progress. In these experiments no accident has occurred in manipulation. The shells have been fired from guns with pressures as high as 43,000 pounds per square inch without accident. At a pressure of 50,000 pounds per square inch the shell exploded, destroying a 12-inch breech-loading rifle. In this case the charge of explosive gelatin is believed to have been frozen, in which state it is more sensitive, and which it reaches at a temperature of about 39° F.

4. Experiments have produced a difference of opinion between the inventor and the boards which have made the tests as to the possibility of firing the Isham shell with safety. It is stated by the army authorities that pressures as high as 50,000 pounds per square inch have sometimes occurred unexpectedly in their guns, using present smokeless powder.

5. In regard to the useful effect of the Isham shell against armor, the boards making the tests and the ordnance officers of the Army generally have stated that the damage done in the experiments has been due mainly to the impact of the projectile, without material assistance from the explosive. This is believed to be because the force of explosion, following the line of least resistance, is directed away from the armor plate.

6. The following extracts are made from the report of the most recent test of this shell at Sandy Hook, dated October 21, 1905:

An Isham 12-inch shell, charged with 178½ pounds of explosive gelatin, consisting of about 90 per cent nitroglycerin, 8 per cent gun cotton, and 2 per cent camphor, was fired under conditions pronounced by Mr. Isham as satisfactory to him in every respect, at a velocity of 1,400 foot-seconds against a target representing the side

of a battle ship and consisting of 11½-inch Krupp plate, cellular structure, and timber backing, the weight of which was about 46 tons and the face dimensions of which were 16 feet wide by 17½ feet high. The target was placed 500 feet from the gun, with its face normal to the line of fire and properly secured. The shell detonated on impact, slightly abrading the face of the plate and making a dish-shaped indentation about 13 inches in diameter and 1½ inches deep at the middle point. The plate was otherwise uninjured. The injury to the cellular structure was very slight and consisted only in the loosening of several nuts of small bolts on the inside and dropping the nuts from two of them. The entire target was displaced in the line of fire 3 inches measured at the right edge and 5.375 inches measured at the left edge, at points 3 feet from the lower edge of the plate. As a consequence of the drop in the front portion of the target the face of the plate was inclined to the front at the top and about 2.5 inches out of vertical.

As far as any sensible damage to the plate or structure was concerned the effect of the Isham shell on this round was practically confined to the displacement of the loose sand about the front and foot of the target and the bodily movement of the target about 4 inches as a result of the impact of the projectile. After making a liberal allowance for the resistance of the backing and its supports the board estimated that 10 per cent of the striking energy due to the weight and velocity of the projectile would more than represent the work accomplished. The board expressed its belief that a sand-loaded projectile would have transferred to the plate a larger percentage of its striking energy than appears to have been transferred by the Isham shell.

The conclusion of this board was as follows: The results of this test confirm others made by the Department and show that any attempt to wreck an armored structure by gun fire with a shell designed for outside explosion only is a wasteful expenditure of material. The Isham shell embodies this condition in two fundamental features: First, in the sensitiveness of the explosive, and, second, in the fragility of the projectile.

7. With the insensitive high-explosive bursting charge now used by the Army, the adoption of which is now being considered by the Navy, it is possible to secure a detonation after penetrating armor of considerable thickness. The effect of such shell is considered to be decidedly more useful than that to be obtained by an explosion outside the armor. The experiments now in contemplation by the War Department with Mr. Isham's shell are intended to demonstrate the effect of the explosion of such a shell on the underwater body of a battle ship. These experiments call for a considerable expenditure of money, and it would seem proper to await their conclusion before considering any tests of this invention on the part of the Navy.

8. It is not considered advisable to use the battle ship *Texas* for such tests as proposed, particularly inasmuch as the services of this vessel can not at this time be spared for such tests.

N. E. MASON,
Chief of Bureau of Ordnance.

P. S.—As the Navy has never experimented with the Isham shell, all the information contained in this memorandum has been obtained from the records of the War Department.

[No. 34.]

**HAROLD D. CHILDS, TO PLACE ON RETIRED LIST (H. R. 22027)—
DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, January 14, 1907.

SIR: I have the honor to acknowledge the receipt of your letter of the 7th instant, inclosing, with request for the views and recommendations of the Department thereon, a bill (H. R. 22027) to place Harold D. Childs on the retired list of the United States Navy.

Mr. Childs entered the Navy September 12, 1898, as a naval cadet, which title was subsequently changed by law to midshipman. After the usual four years' course of study at the Naval Academy he was sent to sea, serving on the *Olympia*, *Biddle*, and *Raleigh*. In September, 1903, while on the last-named vessel, he was found to have acute pulmonary consumption. There is good evidence that this disease originated in the line of duty, from exposure incident to the service. He was treated for it at the naval hospitals at Yokohama, Japan, and Mare Island, Cal., and at the Army General Hospital, Fort Bayard, N. Mex.

In February, 1905, soon after discharge from the Fort Bayard Hospital, Mr. Childs was examined at the Naval Academy preliminarily to final graduation and consequent promotion to the grade of ensign. His physical condition proving unsatisfactory, he was granted sick leave for six months. Further medical examinations were held in September and October, 1905, as a result of which Mr. Childs was reported to be physically disqualified for appointment as ensign, by reason of chronic tuberculosis of the lungs. He was then allowed to resign from the service, his resignation being accepted to take effect January 1, 1906. For the more particular information of the committee there is inclosed a statement of the record of service of Mr. Childs, including his medical record.

The Department is of opinion that midshipmen who become disabled in line of duty while serving as officers at sea should have the benefit of the retirement laws in the same manner as other officers of the Navy, and accordingly it looks with favor upon the passage of a measure for Mr. Childs's relief. The pending bill, however, is regarded as objectionable in point of form in that in directing the appointment of a particular person to a position on the retired list it appears to trench upon the prerogatives of the executive branch of the Government. There is inclosed a draft of a measure which is suggested as a substitute for the pending bill. This measure authorizes the President to appoint Mr. Childs an ensign in the Navy, after nomination to and confirmation by the Senate, and to retire

him as such on three-fourths pay. The provision for three-fourths pay is deemed advisable, as in the absence of it the beneficiary would probably be held entitled to but one-half the pay of his grade.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,

Chairman Committee on Naval Affairs,

House of Representatives.

A BILL for the relief of Harold D. Childs.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President be, and he is hereby authorized to nominate and, by and with the advice and consent of the Senate, to appoint Harold D. Childs, late midshipman, an ensign in the United States Navy, and to place him upon the retired list as such, with three-fourths the pay of his grade.

[No. 35.]

PUBLIC LANDS RESERVED FOR NAVAL PURPOSES AT PORTO RICO—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, January 17, 1907.

SIR: In pursuance of the provisions of an act of Congress "authorizing the President to reserve public lands and buildings in the island of Porto Rico for public uses and granting other public lands and buildings to the government of Porto Rico," approved July 1, 1902 (32 Stat. L., 731), the President, by proclamation dated June 26, 1903 (33 Stat. L., 2314), reserved certain tracts of land in San Juan, P. R., for naval purposes. The tracts so reserved were the following:

1. The public land lying along "the Caguas road * * * to include 80 acres," situated in the easterly suburbs of San Juan.
2. The entire island of Manglar (or Isla Grande).
3. "The peninsula extending into the harbor on the south side of the city of San Juan, P. R., known as the 'barrio de la Puntilla,' or Puntilla Point."
4. The public lands south of the scarp wall on the Puntilla, known as the "park" and the "presidio."

Subsequently, by Executive order dated June 30, 1903 (33 Stat. L., 2315), the President excepted from the operation of his previous order "that certain building and tract of land known as 'the pré-sidio' or 'penitentiary' at San Juan."

The insular authorities have repeatedly complained to the Department that the growth of the city was unnecessarily hampered by the reservation of the tracts of land above mentioned, and particularly that the 80-acre tract lying to the eastward of the city absorbed necessary water front and stood in the way of the growth and development of San Juan in the only direction in which that city could extend and of its growing commerce. There has also been some difference of understanding between the insular authorities and the Navy Department with respect to the boundaries of this latter tract.

Under date of September 4, 1906, Hon. Beekman Winthrop, governor of Porto Rico, addressed a letter to the Secretary of the Navy in which, referring to the naval reservations above mentioned, he stated that a portion of the lands so reserved "are very important to the insular government, as they provide the only available outlet for the commerce of the island," and requested that "a conference be held between a representative of the Navy Department * * * and a member of the insular government," in order that an arrangement satisfactory to all interests might be reached.

To this communication the Department replied that, acting upon the suggestion of the governor, Capt. Samuel C. Lemly, U. S. Navy, retired, was designated as the representative of the Navy Department

and had been ordered to proceed to San Juan, there to confer with a duly authorized representative of the insular government; that Captain Lemly had been instructed to examine into, consider, and report upon the matter; but it was added that the Navy Department could not "by this action or otherwise bind the United States in advance to the acceptance of any conclusions" which might be reached as the result of the proposed conference, and could say only, in this connection, that any reports and recommendations made by the conferees would receive careful attention.

Hon. Frank Feuille, attorney-general of the island, was designated by the insular government as its representative. After personal inspection of the reservations and consideration of the questions presented, Captain Lemly and Mr. Feuille have united in a report, a copy of which is inclosed for the information of the committee. Briefly stated, the understanding reached is that the United States should relinquish to Porto Rico the greater portion of the tract of 80 acres reserved by paragraph 1 of the President's proclamation of June 26, 1903. The grounds of this recommendation are that this tract is not needed and is not likely to be needed for naval uses; that it stands in the way of the city's development, blocking the gateway to the body of the island and obstructing commerce, and that, in consideration of this cession, the insular government will in turn cede to the United States certain tracts more immediately valuable for the uses of a naval station at San Juan. The tracts proposed thus to be ceded to the United States are:

That tract or parcel of land, containing about 11 acres, extending east from the new wireless station, between the north line of the survey heretofore made by the Navy Department and the south line of the military reservation, to the tract of 4.59 acres belonging to and reserved by the insular government for jail or penitentiary purposes; also that triangular tract or parcel of land containing 0.7 of an acre, lying to the northward of the western portion of the present naval hospital reservation, extending to the army reservation line; also all public lands of Porto Rico south of the scarp wall on the barrio de la puntilla.

Upon careful consideration of the report, I am of the opinion that the conferees in this case have arrived at a wise and satisfactory solution of the matter, and their recommendations are accordingly approved and submitted to the committee for such action as may be deemed appropriate. A draft of a measure intended to carry these recommendations into effect is inclosed for the convenience of the committee should it concur with the Department in the conclusion that the action advised in the report should be taken.

Captain Lemly will at any time upon suggestion from the committee appear before it for the purpose of explaining any details of the proposed adjustment with respect to which further information may be desired.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

LIST OF INCLOSURES.

A.—Draft of a bill "to readjust the boundaries of the naval reservations in Porto Rico established in pursuance of the act of July 1, 1902."

B.—Copy of report submitted December 10, 1906, by Capt. Samuel C. Lemly, U. S. Navy, retired, representing the Navy Department, and Hon. Frank Feuille, attorney-general of Porto Rico, representing the insular government.

C.—Copy of chart of "San Juan Harbor, Porto Rico," published by the Coast and Geodetic Survey February, 1905, showing the naval reservations in Porto Rico as they would exist if the recommendations contained in the above report be adopted.

A.

A BILL to readjust the boundaries of the naval reservations in Porto Rico established in pursuance of the act of July first, nineteen hundred and two.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the President be, and he is hereby, authorized and empowered, by proclamation giving specific description thereof by metes and bounds or otherwise, to cede, transfer, and convey to the government of Porto Rico, to be held and disposed of for the use and benefit of the people of said island, such portions as are not needed for naval purposes of the tract of eighty acres of public land lying along the Caguas road, city of San Juan, Porto Rico, heretofore, by paragraph marked one of the executive proclamation of June twenty-sixth, nineteen hundred and three, reserved for the use of the United States in pursuance of the provisions of the act of July first, nineteen hundred and two: *Provided*, That before such cession shall be made the government of Porto Rico shall, by proper authority, cede, convey, release, and transfer to the United States the following tracts of land, together with all buildings and improvements thereon; that tract or parcel of land containing about eleven acres, extending east from the new wireless station, between the north line of the survey heretofore made by the Navy Department and the south line of the military reservation, to the tract of four and fifty-nine hundredths acres belonging to and reserved by the insular government for jail or penitentiary purposes; also, that triangular tract or parcel of land containing seven-tenths of an acre, lying to the northward of the western portion of the present naval hospital reservation, extending to the army reservation line; also, all public lands of Porto Rico south of the scarp wall on the Barrio de la Puntilla.

B.

SAN JUAN, P. R., December 10, 1906.

SIRS: We, the undersigned, representing, respectively, the United States Navy Department and the insular government of Porto Rico, in obedience to the instructions received by each of us, have examined into the questions relating to the boundaries of lands reserved for naval purposes in San Juan, and, after conferring fully thereon, have the honor to submit this report as our conclusions in the premises, with recommendations which appear to be germane to the subject.

The status of this matter upon our taking cognizance of it, and at the present time, is substantially as laid down in the proclamation of the President, dated June 26, 1903 (33 Stat. L., p. 2315), with certain modifications which, wherever material, are hereinafter referred to.

No questions have arisen between the National Government and the insular authorities with regard to the lands described in paragraph numbered 2 of the President's proclamation relating to Isla Grande (or Manglar) and that numbered 5 of the same, and therefore no extended reference to them is necessary. The island of Culebra (paragraph numbered 5), however, was visited by the naval representative in order to better understand the entire situation in Porto Rican waters.

The paragraph numbered 1 in the proclamation hereinbefore referred to is as follows:

"The public land lying south of the Caguas road, shown on the United States hydrographic map No. 1745, of July, 1898, and for 250 feet north of said

Caguas road, to be bounded on the west by a true north and south line passing through the eastern corner of the railway station shown on said map, on the south by the shore of the harbor, and to extend east 2,400 feet, more or less, to include 80 acres; provided, however, that there may be excepted from the foregoing reservation such areas as may by the Secretary of the Navy be deemed requisite to provide suitable access to the city of San Juan across said reservation by railroad or other public highways."

Some difficulty has been encountered in arriving at the full and exact meaning of the following clause of the proclamation, on account of differences of opinion as to whether the reservation made therein was to embrace 80 acres of public land, or whether an 80-acre tract was intended. In the naval survey heretofore made it was deemed necessary to extend the lines to the eastward some 7,200 feet, instead of 2,400 feet, more or less, as stipulated in the proclamation, in order to include 80 acres of public land, or thereabouts. The interpretation of this clause need not be discussed or determined now, as the disposition recommended herein of the entire naval land question obviates the necessity thereof.

Of the 80-acre plat as laid down in the Navy Department survey, we recommend that all that part (except as herein stated) which lies south of the Caguas, or military, road, and including said road, be relinquished to the insular government, and that north of said road the Navy Department retain the following described parcels, surrendering the remainder to the insular authorities, and that the insular government cede to the Navy Department the lands hereinafter set forth.

The Navy Department to retain:

(a) The parcels upon which are located the naval hospital property and old wireless station, some 3.7 acres.

(b) The tract containing some 2.6 acres connected with the naval hospital site by a strip of land about 22 feet wide, and extending eastward of the ground occupied by Asilo de Ancianos Desamparados, not including the area of 0.4 of an acre now occupied by a Catholic church and vicarage.

The land mentioned in the two foregoing paragraphs is designated as one tract by the letter E on the plans.

(c) The land occupied by the caminero (road section) house, containing about 0.3 of an acre, adjoining the new wireless station designated on the plans by the letter D.

(d) The parcel containing some 10 acres, designated on plans by the letter B, and extending from the new wireless station eastward along the north side of the military road, between the north line of said road and the south line of the tract belonging to the insular government to the proposed site of the United States marine hospital, excepting therefrom a strip of land fronting 60 feet on the Caguas road, extending north along the west line of said marine hospital site to the lands of the insular government, the said strip of 60 feet of land to be surrendered to the insular government for the uses and purposes of a public highway.

(e) The parcel containing some 2 acres, designated on plans by letter A, lying south of the Caguas, or military, road and east of the tract on which the building known as "Puerta de Tierra Jail" is located, and having a front on said road of 405.61 feet and extending south the full width to the water front as now existing or as it may hereafter be established.

(f) A strip of land lying to the west of the Puerta de Tierra Jail site, now the property of the Porto Rico and American Tobacco Company and used as a cigar factory, fronting 60 feet on the Caguas road and extending the full width south to the water front as now existing or as it may hereafter be delineated, and designated on plans by the letter C.

The insular government shall cede to the Navy Department:

(g) The parcel containing some 11 acres belonging to the insular government and extending east from the new wireless station (the lands of which are the property of the Army, but it is understood are to be transferred to the Navy), between the north line of the survey heretofore made by the Navy Department and the south line of the military reservation to the tract of 4.59 acres belonging to and reserved by the insular government for jail or penitentiary purposes.

The land reserved by the Navy Department in paragraph (d) hereof and that ceded by the insular government in paragraph (g) hereof, aggregating some 21 acres, are designated on the plans by the letter B as if one tract.

(h) The triangular parcel containing 0.7 of an acre lying to the northward of

the western portion of the present naval hospital reservation, extending to the army land line and included in the tract designated "E" on the plans. This plot is urgently needed for the hospital stables now located, for lack of space, in an unsightly position between the hospital and the residence of the surgeon in command, though somewhat to the rear.

Briefly stated, our reasons for recommending the foregoing division of the lands heretofore reserved and known as the "80-acre survey" are that the city of San Juan, through the insular authorities, may have such lands as are not needed for naval purposes to extend its boundaries, and that there may be given to the island at its capital the water front so necessary to the development of its growing commerce. Moreover, the land relinquished is not regarded as especially desirable for naval purposes, particularly when it is remembered that a railroad, a trolley line, and the principal highway in the island would run through it. On the other hand, owing to the lay of the land, it is absolutely necessary that the inhabitants of the city of San Juan be permitted to use this part of the narrow peninsula, Puerta de Tierra, which affords the city's only gateway to the main island.

Upon examination it has been found that the National Government has reserved for public uses more than two-thirds of the water front on the city side available or capable of being made servicable in the harbor of San Juan. Were it really needed for public purposes this great proportion would not be regarded as unreasonable, but in view of the fact that the naval necessities do not require it and that the commercial interests of the island would be greatly injured thereby we submit that such an inequitable division should not be made.

With regard to the parcels retained by the Navy Department in the 80-acre survey, and those to be acquired by that Department for naval uses, we would say that while disclaiming any intention of going beyond the limits of our duties in the premises, by selecting sites for the various subdivisions of the proposed station, we venture to submit the following remarks:

The hospital tract is now located, with the proposed accession of the small triangular piece of 0.7 of an acre from the insular government and the transfer from the Bureau of Equipment to that of Medicine and Surgery of the old wireless station, when discontinued as such, seems admirable for the purpose to which it had been devoted, and it is understood is entirely satisfactory to the naval medical officers stationed in San Juan.

The tract next east of the ground occupied by the Asilo de Ancianos Desamparados and connected with the naval hospital site by the narrow strip hereinbefore mentioned, containing some 2.6 acres, is regarded as well suited for the location of houses for such officers, if any, as the Department may deem it advisable should reside outside of the limits of the puntilla.

As hereinafter stated, the small caminero property of 0.3 of an acre would be suitable for the exchange with the Department of Commerce and Labor for their smaller plot of 0.175 of an acre adjacent to the San Justo bastion on the northeast corner of the puntilla.

Finally, the large easternmost tract of some 21 acres recommended to be held as enlarged by the acquisition of the 11.16-acre tract from the insular government, while useful also for other purposes if desired, would make an admirable site for marine barracks and marine officers' quarters, with large level parade and drill grounds, the whole adjoining the army lands upon which is located a rifle range. The use of this range for the marines could doubtless be obtained from time to time, if requested.

The foregoing suggestions are made largely upon the supposition, as is now the case, that a greater force of marines than is necessary for local purposes, such as protecting the naval property, will in the future be maintained in San Juan. A guard of sufficient number for the protection of the navy-yard could be quartered on the puntilla and exchanged from time to time. The distance from the barracks to the yard on the puntilla, about 1½ miles, could not be urged as a tenable objection, particularly as easy communication by water as well as land would be afforded. The colonel commanding the marines at this station has been fully consulted in this matter.

Paragraphs numbered 3 and 4 of the President's proclamation (June 26, 1903) relating to what is known as "Barrio de la Puntilla," or Puntilla Point, which, so far as acquired and occupied, is the site of the present naval station, are as follows:

"3. All public lands, and the structures thereon, situated on the peninsula extending into the harbor on the south side of the city of San Juan, P. R., known as the 'Barrio de la Puntilla,' or Puntilla Point, bounded on the north by the

south boundary of the Paseo de la Princesa and on the east, south, and west by the navigable waters of the harbor of San Juan, at such port warden's line as may be established by competent authority.

"4. The public lands south of the scarp wall on the puntilla, known as the park and the presidio, and bounded on the north by the said scarp wall, on the east by a line drawn 74 feet east of the northeast corner of the San Justo bastion, on the south by the south side of Paseo de la Princesa, and on the west by the deep-water channel of the harbor entrance."

We regard the peninsula as the most desirable location for a naval station to be found in the immediate vicinity of San Juan, the harbor of which city, it is understood, has been already decided upon for the establishment of such a plant. Parts of the peninsula—public lands and structures thereon—have already been acquired, and it is recommended, the requisite authorization of Congress having been obtained therefor, that the Navy Department proceed to acquire from the insular government by cession all public lands and structures, and from individual owners by condemnation proceedings their holdings, so that the naval authorities may possess the entire peninsula from the scarp wall as a northern boundary to the navigable waters on the east, south, and west of the harbor of San Juan at such port warden's line as may be established by competent authority, including the park or garden, the presidio (penitentiary), and the Paseo de la Princesa.

It is proper here to invite attention to the fact that while the presidio was embraced in the paragraph marked (4) of the President's proclamation dated June 26, 1903, it was subsequently returned to the insular government by Executive order of June 30, 1903, with the grounds belonging to it, as follows:

"It is hereby ordered that so much of the order or proclamation by me signed on June 26, 1903, reserving certain lands in the island of Porto Rico for naval uses as set apart and reserved that certain buildings and tract of land known as the presidio or penitentiary at San Juan, be, and the same is hereby, modified, and the said tract of land, together with the buildings thereon, are hereby ordered withdrawn from the operation of the said above referred to proclamation or order, and from any and all effect thereof."

Important to the Navy Department is the acquisition of the parcel of 0.175 of an acre of land already referred to adjacent to San Justo bastion, and on the northeast corner of the puntilla, now the property of the Light-House Establishment, in order that the whole peninsula, some 30 acres, may be devoted to naval uses. It is recommended, therefore, that this plot be obtained from the Department of Commerce and Labor in exchange for the small lot about 0.3 of an acre, situated just west of the new wireless station in Puerto de Tierra, being a part of the original 80-acre survey, or from other lands in said vicinity which may become the property of the Navy Department.

Isla Grande (paragraph No. 2 of the President's proclamation) should not be overlooked in considering the general scheme for the naval station at San Juan. While this island is not now serviceable, owing to its being overgrown with manglares and at high tide nearly covered with water, yet it is believed to be capable of ready and economical reclamation in conjunction with the urgently needed dredging of the harbor when that shall be undertaken.

Isla Grande contains about 85 acres, and if reclaimed it is thought will prove an admirable adjunct to the puntilla and aid in constituting a naval station which will meet all the essential requirements, present and future, of the fleet in these waters.

Full and accurate descriptions by metes and bounds of the various tracts of land referred to in this report will be found with the accompanying plans.

In conclusion, we submit that our report has been the result of careful examination and mature deliberation, and we trust that the Navy Department and the insular authorities will concur in the views herein presented, which have been reached only after full consideration in the most amicable spirit, keeping in view the interests of both the Navy Department and the people of Porto Rico, to the end that a naval station may be established in San Juan, which is so important to the general and to the insular government, and one that by its location will neither hinder the healthy growth of the city nor retard the increasing commerce of the island.

We have the honor to be, your obedient servants,

SAM C. LEMLY,
Captain, U. S. Navy (Retired).

FRANK FEUILLE,
Attorney-General of Porto Rico.

**THE SECRETARY OF THE NAVY, and
THE GOVERNOR OF PORTO RICO.**

[No. 36.]

RELIEF OF LEMUEL FRIEND (H. R. 17677)—DEPARTMENT
LETTER.

NAVY DEPARTMENT,
Washington, January 21, 1907.

SIR: Referring to your communication requesting to be furnished for the use of the Committee on Naval Affairs in the consideration of the bill (H. R. 17677) "to amend the discharge certificate of Lemuel Friend," with the views and recommendations of the Department touching the propriety of the legislation proposed, I have the honor to state that it appears from an examination of the records on file in the Bureau of Navigation and in the office of the Auditor for the Navy Department that Lemuel Friend enlisted in the Navy at New Bedford, Mass., October 11, 1861, as a seaman, for three years; served on board the U. S. S. *Ohio*, *Fernandina*, *North Carolina*, and *Clifton*, and was taken prisoner when the last-named vessel was captured by the enemy at Sabine Pass, Tex., September 8, 1863; that he was taken up on board the *North Carolina* February 27, 1865, as a "paroled prisoner from Texas" and served on board said vessel until May 29, 1865, when he was discharged by reason of expiration of enlistment.

It appearing from a statement filed in the case that Friend at the time of his discharge received only an "ordinary discharge" instead of an "honorable discharge," for the reason that being discharged from a receiving ship he had no record on her for which he could be given an honorable discharge—the service on the receiving ship being only from February 27 to May 29, 1865—the Department has no objection to the passage of the bill for Friend's relief, inasmuch as it appears that his service was faithful from the time of his enlistment to the date of his capture, and he would have been entitled to an honorable discharge at the expiration of his enlistment.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

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[No. 37.]

PURCHASE OF SUPPLIES—DEPARTMENT LETTER.

NAVY DEPARTMENT,
BUREAU OF SUPPLIES AND ACCOUNTS,
Washington, D. C., January 22, 1907.

SIR: The Bureau recommends the following legislation to be inserted in the naval appropriation act now under consideration by Congress:

Hereafter the purchase of supplies and the procurement of services for all branches of the naval service may be made in open market in the manner common among business men, without formal contract or bond, when the aggregate of the amount required does not exceed five hundred dollars (\$500.00), and when, in the opinion of the proper administrative officers, equally or more advantageous terms can thereby be secured.

2. According to existing law, as laid down by the Comptroller of the Treasury, every order placed for the procurement of supplies or services must form the basis of a formal contract, no matter how small the amount involved may be, unless the time between the date of agreement and the date of delivery should be too short to permit the execution of said formal contract.

3. Section 3744, Revised Statutes, requires that every contract must be reduced to writing and signed by the contracting parties; that a copy shall be filed in the return office of the Department of the Interior; and that all bids, offers, and proposals made in connection with such contract, together with a copy of any advertisement published inviting such bids, offers, or proposals, shall be attached thereto by a ribbon and seal, marked by numbers in regular order, according to the number of papers composing the whole return, and filed with the contract. In addition, copies are required for the Auditor's office, for the Bureau, for the general storekeeper, for the purchasing pay officer, and for the contractor.

4. The execution of formal written contracts, as outlined above, whenever purchases in small amounts are made (except upon immediate delivery of supplies or services), is extremely cumbersome in method, and totally at variance with established business practice. It not only exposes the Department to ridicule, but actually deters reputable merchants and manufacturers from having direct dealings with the Navy Department, thereby reducing competition and strengthening the grip of middlemen and "vest-pocket" merchants upon the Department's business. The amendment of the law herein suggested embraces practically a provision inserted annually in the army appropriation bill, and the Bureau regards its adoption as imperative if the Department desires to obtain wholesome competition

and to escape the reproach now cast upon it in the business world. The Bureau believes that the accounting officers of the Treasury fully concur in its condemnation of existing requirements and that they would cordially approve the proposed amendment to the law.

Respectfully,

E. B. ROGERS,

Paymaster-General U. S. Navy.

The SECRETARY OF THE NAVY.

[No. 38.]

**SUPERINTENDENT OF TEAMS, NEW YORK NAVY-YARD -
DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, January 22, 1907.

SIR: I have the honor to inclose herewith copy of a letter of the 21st instant, addressed to the Department by the Chief of the Bureau of Yards and Docks, in which he refers to the item of "One superintendent of teams, at \$4 per diem, \$1,256," under the heading "Navy-Yard, New York, N. Y.," which provides pay for 314 days, and does not include any pay for Sundays; invites attention to the fact that for about twenty years past the estimates for the Portsmouth, N. H., Navy-Yard, have included an item "One foreman laborer and head teamster, at \$4 per diem, including Sundays;" states it is understood that the duties at the Portsmouth Navy-Yard are of the same general character as at the New York Navy-Yard, except that at the latter yard there are a larger number of teams to look after, and that, for uniformity and to provide adequately for the service rendered, it would appear very desirable that the estimate for pay of the superintendent of teams at the New York Navy-Yard include an allowance for pay on Sundays the same as at the Portsmouth Navy-Yard; and recommends that this allowance be secured at the present session of Congress, if practicable, by the insertion, in lieu of the item previously requested, of an item reading as follows: "One superintendent of teams, at \$4 per diem, including Sundays, \$1,484."

In view of the facts as stated by the Chief of the Bureau of Yards and Docks, the Department respectfully submits this matter to the committee with the request for favorable consideration.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT,
BUREAU OF YARDS AND DOCKS,
January 21, 1907.

SIR: Referring to the estimates submitted by the Bureau under "Civil Establishment," for the fiscal year ending June 30, 1908, the Bureau has the honor to invite the Department's attention to the item under "Navy-Yard, New York, N. Y.," reading as follows:

"One superintendent of teams at \$4 per diem, \$1,256," which provides pay for 314 days, and does not include any pay for Sundays.

2. For the past several years the civil engineer at the New York Navy-Yard has recommended that this employee be allowed pay for Sundays, inasmuch as he is in charge of the yard stables and is required to be on duty on Sundays. This recommendation has received the approval of the commandant of the New York Navy-Yard.

3. In this connection attention is invited to the fact that for about the past twenty years at the Portsmouth Navy-Yard the estimates have included an item for "One foreman laborer and head teamster at \$4 per diem, including Sundays." It is understood that the duties at the Portsmouth Navy-Yard are of the same general character as at the New York Navy-Yard. At the New York Navy-Yard, however, there are a larger number of teams to look after.

4. For uniformity, and to provide adequately for the services rendered, it would appear to the Bureau very desirable that the estimate for pay of the superintendent of teams at the New York Navy-Yard include an allowance for pay on Sundays, the same as at the Portsmouth Navy-Yard, and the Bureau has the honor to recommend that this allowance be secured at the present session of Congress, if practicable, by the insertion in lieu of the item previously requested of an item reading as follows: "One superintendent of teams at \$4 per diem, including Sundays, \$1,484."

Very respectfully,

H. H. ROUSSEAU.

The SECRETARY OF THE NAVY.

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INCREASE OF NAVY—LETTER FROM THE PRESIDENT.

THE WHITE HOUSE,
Washington, January 11, 1907.

SIR: I feel so strongly that there should be two first-class battle ships of the maximum size and speed and with their primary battery all of 12-inch guns added to the Navy this session that I desire to lay the matter before your committee through this letter. These two big ships should include the one provided for last year and the one provided for this year. It must be remembered that I am not asking for any increase in the Navy, because unless we can provide at the rate of a battle ship per year our Navy will go backward. Moreover, I am advising that our money be spent economically. It has been a waste of money to provide such ships as the single-turret monitors; and while the cruisers, and especially the great armored cruisers, serve some useful purposes, it would nevertheless have been infinitely better to have spent the money which actually was spent on them in the construction of first-class battle ships. Our great armored cruisers are practically as expensive to build and maintain as battle ships, and yet, taking the battle ship all around for the purposes for which a navy is really needed, its superiority to the armored cruiser is enormous. I thoroughly believe in developing and building an adequate number of submarines; I believe in building torpedo-boat destroyers; there must be a few fast scouts, and, of course, various auxiliary vessels of different kinds. But the strength of the Navy rests primarily upon its battle ships, and in building these battle ships it is imperatively necessary, from the standpoint alike of efficiency and economy, that they should be the very best of their kind. In my judgment we are not to be excused if we build any battle ship inferior to those now being built by other nations. I should be glad if a limitation could be put by international agreement to the size of battle ships hereafter to be built. I have found, however, that it will undoubtedly be impracticable to secure any such agreement in the near future. In the first-class navies generally these big battle ships have already been built or are now building. We can not afford to fall behind, and we shall fall behind if we fail to build first-class battle ships ourselves. Unless we intend to go on building up the fleet, we should abandon every effort to keep the position which we now hold, whether in the Pacific Ocean or in American waters generally. Our justification for upholding the Monroe Doctrine and for digging the Panama Canal must rest primarily upon our willingness to build and maintain a first-class fighting fleet. Be it remembered, moreover, that such a fleet is by far the most potent guaranty of peace which this nation has or can ever have.

I therefore desire to lay before you the following reasons for my belief in the advantages of battle ships of large displacement, with their primary batteries all of one type of big gun, as compared with

all other fighting craft. I need hardly say that in what I am about to write I speak of one type of battle ship when compared with another type on the supposition that both are handled equally well and that the conditions under which they meet are normal. A great superiority of skill will compensate for a marked inferiority in ship or weapons, and under abnormal conditions even an ordinarily poor ship may be a match for a ship which, under usual conditions, is far its superior.

Much of the information showing the superior value of battle ships of large displacement, high speed, and great gun power is of a very technical nature and can not be briefly stated. This is especially true of certain confidential information concerning the requirements necessary for efficient long-range gun fire, it being understood that in this sense efficiency of gun fire refers exclusively to hitting, that is, to the number of large projectiles that can be landed against an enemy's hull in a given time, and not to the number of all calibers, including 6-inch, etc., that can be fired in a given time, which latter is known as the "volume of fire," a popular expression having no useful meaning in a military sense.

But disregarding these arguments, it may still be clearly shown that a certain sum of money appropriated for naval construction can be more advantageously expended for large, high free-board vessels, having many large guns of the same caliber, than for smaller vessels of lower free board, having fewer large guns and numerous small guns. For example:

Now that a high degree of skill has been developed in naval marksmanship, especially with heavy guns, future battle ranges will be so great (3 or 4 miles) that small guns (6-inch, etc.) will be practically ineffective, especially against large vessels having all of their guns and gun crews in 12-inch turrets behind heavy armor.

Therefore the effective offensive power of a battle ship may now be measured by the number of heavy (12-inch) guns she can fire on either broadside. For the ordinary battle ship this effective broadside fire consists of four 12-inch guns.

It follows as a matter of course that a large ship having a broadside fire of ten 12-inch guns could promptly destroy a battle ship of the usual type having four 12-inch guns; and with the advantage of the greater speed of the larger vessel, which would enable her to choose her own distance, she would be more than a match for two of the smaller vessels.

But as battle ships are not intended to fight singly, their efficiency must be determined by a comparison of their relative abilities when fighting in fleet formation. In this respect a relatively small squadron of large battle ships having the same number of heavy guns as a much larger squadron of small battle ships has a still greater natural advantage, which is inherent in the design of the large vessels. This advantage consists in the ability of the small squadron of large vessels to concentrate upon a limited part of the enemy's line the fire of many more heavy guns than the ships of that part of the line are able to return, which of course would result in the successive destruction of the entire fleet of small vessels.

Putting the extreme case for the sake of illustration, this may be shown by comparing the fighting value of two squadrons having exactly the same number of heavy guns mounted in one case on a few large vessels and in the other on many small ones. Thus

a squadron of ten small vessels, each having a broadside fire of two heavy guns, or twenty guns in all, must inevitably be defeated by a squadron of two large vessels, each having a broadside fire of ten heavy guns, because the squadron of small vessels would be about 2 miles long, and therefore can not concentrate all of its fire effectively upon the two large vessels, whereas the latter, by the great concentration of their heavy guns, all within a length of half a mile, can readily destroy the small vessels nearest to them in the line, and, in the same manner, successively destroy the remainder.

That is to say, the large vessels can always attain the object sought in all battles, namely, the concentration of a superior force upon an inferior one—upon a part of the enemy's line, while the remaining parts are outside of effective range; and no tactical skill on the part of the squadron of small vessels can counteract this advantage, because the ability to concentrate is inherent in the design of the large vessels.

The squadron of large vessels must of course be able to choose its own distance and relative position, which it can always do, because of the much greater speed that can be given to vessels of large displacement.

The same is true, though to a less degree, when we compare vessels having a broadside of four 12-inch guns (the ordinary battleship) with those having a broadside of ten 12-inch guns (the battleships proposed).

From the above it seems evident that, from the point of view of naval efficiency alone, we should build vessels each mounting as many heavy guns as practicable. That is to say, if it be decided that our naval force should be increased by a broadside fire of forty heavy guns, then efficiency demands that we build four high-speed ships, each having a broadside fire of ten 12-inch guns, rather than a greater number of smaller ships having a broadside fire of four 12-inch guns each.

For the reasons given above, a squadron of vessels each having a broadside fire of twelve or more heavy guns, would be more powerful than a squadron having the same number of guns mounted on vessels having a broadside of ten guns each; and the sole reason for not advocating more than ten guns on a broadside is that such vessels are not at present necessary, as none of the vessels of our possible enemies have a greater offensive force. The principle, however, holds good that, given the same number of 12-inch guns in each of two squadrons, the squadron having the most guns on each of its vessels (and consequently the greatest flexibility in maneuvering and concentration of fire) will be the most powerful, assuming skill in marksmanship, tactics, etc., to be equal.

While the question of economy should not be allowed to diminish the naval force (the number of effective guns) required for national defense, it may nevertheless be stated incidentally that we can increase our naval force by a broadside fire of, say, forty 12-inch guns at considerably less cost by building ships having a broadside fire of ten heavy guns each than by building a greater number of smaller ships each having a less broadside fire.

For example, four large vessels, mounting forty heavy guns, would cost about \$40,000,000, whereas ten small ships mounting the same

total number of heavy guns would cost about \$70,000,000. Moreover, though a large ship consumes more coal, a small ship having a large number of small guns (6-inch, etc.) actually requires more men and officers than a large one having heavy guns only, and consequently each small ship costs at least as much as to maintain and to repair. For example, the complement of the *Dreadnaught*, of 18,000 tons, is 690 officers and men, while that of the *Louisiana*, of 16,000 tons, is about 850. Therefore for the sum that it would cost to maintain ten small ships we could maintain a squadron of four large ones that would be greatly superior in tactical qualities, total effective hitting capacity, ability to fight the guns in a heavy sea, speed, protection, and the inherent ability to concentrate its gun fire (and which, therefore, could readily defeat the ten small vessels), and make a yearly saving of over four millions in maintenance, not to mention a saving of about thirty millions, or over 40 per cent, in the original cost; and we would require fewer men and officers to handle the more efficient fleet.

In addition to the above-indicated tactical qualities of large vessels, they also possess the great advantage of carrying their guns at a considerably greater height above the water, thus enabling them to fight them effectively when some of the guns of vessels of lower free board could not even have their ports open. For example, the *Michigan* and *South Carolina* are defective in this respect, having their forward turret guns at a height of only 24 feet above the water, while those of the British *Dreadnaught* are at a height of about 35 feet.

All first-class foreign maritime nations, including, for example, England, Russia, and Japan, are now laying down or preparing to lay down high-speed battleships of from 18,000 to 20,000 tons displacement, with main batteries composed exclusively of heavy guns.

It is therefore manifest that an adherence on the part of this country to the smaller types of low free-board ships with mixed batteries and few heavy guns would manifestly place us at a great disadvantage, because we would be paying more per 12-inch gun of broadside fire than our rivals, and these guns would be less effective in battle.

I inclose a copy of a discussion on this subject by Lieut. Commander William S. Sims, of the U. S. Navy, an officer whose signal service to our Navy in the development of its marksmanship can not be overstated.

Very respectfully,

THEODORE ROOSEVELT.

HON. GEORGE E. FOSS,
*Chairman Committee on Naval Affairs,
 House of Representatives.*

STATEMENT OF W. S. ISHAM RELATIVE TO OUTSIDE EXPLOSIONS.

The function of a war ship or other implement of warfare is to destroy or do serious harm to an enemy. To be an efficient fighting machine this effect should be wrought without serious or corresponding damage to the machine itself. Are our modern battle ships efficient fighting machines by these old and recognized standards? A review of the facts shows: First, armor-piercing projectiles will not destroy or do serious harm to a modern battle ship or its personnel at the ranges imposed by the destructive zone of the modern torpedo; second, every projectile in the battle ship's magazine would be exhausted in a sharp engagement lasting less than two hours; third, in that time the 100 shots fired from each gun would produce such erosion of the rifling as to make them useless and the ship, therefore, worthless until the guns could be replaced. Hence it is evident that a modern battle ship, as now constructed, without the employment of inflammable material and with the personnel entirely protected by thick armor, puts herself out of action before she can do serious harm to an adversary of equal fighting strength and quality, and such a ship is therefore the antithesis of an efficient fighting machine.

By the employment of outside explosive shells modern battle ships become efficient fighting machines because:

First. Such shell striking a ship will destroy by concussion and noxious fumes all life whether in turrets or conning towers, and however well protected, as has been proven with small charges of explosive gelatin by the destruction of chickens placed behind protecting embankments and at a distance from the explosion.

Second. Such shell will destroy any ship afloat upon exploding in the water within a distance of 50 feet from such ships. This claim is based upon accepted data derived from tests and employed in the fixing of the location of contact and observation mines.

Third. These shell, it is claimed, will blow in the side of a battle ship; but as this can not be established conclusively by tests already made, it is desired that it be proven by a test against the *Texas*, which is the object of the present presentation of facts.

Fourth. The life of the guns will not be impaired by long continued firing at the lesser pressures which may be employed.

Fifth. The magazines will not be emptied before serious damage has been inflicted upon an enemy, because, employing our percentage of hits at Santiago, it would appear that even with the increased range now imposed we could hope for 10 shots to score on an enemy and twice as many more in the water within a destructive range before the magazine would be emptied; hence the present battle ship

becomes an efficient fighting machine through the use of such shell and their employment has become an urgent necessity.

But there is yet a deeper question growing out of this change in projectiles which involves the construction of the ship and even her tactical and strategical employment.

It is an old and homely saying, yet nevertheless forcible and recognized axiom, that "it is the longest pole that knocks the persimmon." This axiom applies in particular to warfare, and the outside explosive shells give this great advantage to the ship employing them. If the ship is enabled to select as a range for attack a distance outside of the range of the enemy's guns and yet within that where her own may be effectively employed. Such a position is secured through speed, long radius of action, increased angle of elevation of guns, and by increased height of guns above the water line. This brings us to a consideration of the fighting ship of the future. This ship will be somewhat similar to the type of which England is now building five, namely, a very heavily armored vessel, but carrying, perhaps, 14 or 16 inch guns and capable of making at least 26 knots per hour, and having a maximum radius of action. The design of the ship will be such as to secure in the highest possible degree a steady gun platform in the heaviest weather and present the smallest possible contour for a target. The heavy guns forming the entire armament of some of them will be located at such a height above the water line that they may be operated under the most unfavorable conditions. Such a ship can select her time for attacking a battle-ship squadron when high seas will prevent the use of their guns, it being well known that nearly all battle ships can not unstrap their turrets in a heavy sea without danger of foundering, to say nothing of their inability to fire at an enemy which has selected a windward position.

Such armored vessels are perfectly protected from the effect of the heaviest armor-piercing shell fired at a range of 5 or 6 miles, and would, therefore, engage a battle ship of the *Dreadnought* class at this range upon an equal footing with respect to fighting quality in any weather and possess the inestimable advantage over such of ability to run away or close in as the exigency of the occasion may demand. These hints are sufficient to show the urgency for the construction of a strong fleet of such ships to meet the new conditions which have rendered battle ships as antiquated as the flintlock musket. This wonderful evolution in fighting ships has been caused by improvements in the torpedo, compelling a greatly increased fighting range. The use of outside high-power or, as they are sometimes called, torpedo shell, will still further greatly increase this range, making all present designs of ships absolutely antiquated. Shall we not profit by this past experience and endeavor to prevent its repetition? It is for you to determine.

It is not absolutely necessary that any shell be adopted at the present time, but it is important that ships be constructed in full knowledge of their employment and effect. To obtain this knowledge the test against the *Texas* is imperatively necessary and is, therefore, urged, and no consideration of cost involved in repairs that may be necessary to the *Texas* should outweigh the desirability of obtaining this knowledge which will save millions of dollars that may be otherwise wasted.

WASHINGTON, D. C., *January 8, 1907.*

SIR: Confirming an interview had with you this afternoon, I present herewith a copy of the bill which I am about to have introduced into Congress, and offer the following brief statement of facts which, I trust, will cause you to indorse the passage of the bill as a Department measure.

It is proposed to settle definitely and forever all question as to outside explosive effects by employing in this test the largest shell used, say 12 or 13 inch, charged with the most powerful explosive ever used for this purpose, namely, explosive gelatine, and firing it with a velocity to simulate a range of, say, 8 miles, at the armor belt amidship of the battle ship *Texas*, said ship to be anchored over a sand bar in such a manner that she would settle but a foot or two in case a rent in her side below the water line should result from the explosion of the projectile.

If those who believe that serious injury may result from outside explosion of such shells are wrong then no serious harm will be done the *Texas*, and the expense of the test will be slight and well within the small appropriation asked for in this bill. On the other hand, should a hole be blown in her side, say 15 feet in diameter, she would simply rest lightly on the bottom and probably without other serious injury, her water-tight compartments localizing the flooding. She could then be patched with a mattress, pumped dry, raised, docked, and repaired at slight cost, judged by experience with torpedoed ships in the Far East and representing but an infinitesimally small part of the saving to this Government which would accrue through the value of the information gained.

Among the many reasons why this test should be made are the following: First, thick armor penetration at fighting ranges is impossible. Proof of this is found in all recent technical essays upon this subject; one of these is sufficient for the purpose. United States Naval Institute Proceedings, 1903, page 290, says:

The new torpedo (2,000-yard range) is likely to make the range limit (of the gun) 3,000 yards, a distance at which very little penetration may be hoped for, even were normal impact to be secured.

This is due to the well-known whipping action which the shell receives when striking a target at long range, due to the angle between the axis of the projectile and the trajectory at impact, and which angle is a little more than double the angle of elevation of the gun. It is this well-known fact, substantiated by abundance of testimony that is adduced as the reason why soft-nosed caps are ineffectual at long ranges and accounts for the nonpenetration of thick armor, even in a single instance in the Russo-Japanese war, although a hundred hits were scored upon such armor with the heaviest shell fired from the most powerful guns and at ranges but slightly in excess of 3,000 yards. Since this war the range of torpedoes has doubled (they now have 4,000-yard ranges, with prospect of being increased to 6,000 yards), which increases the limiting range of guns to from 5,000 to 7,000 yards, at either of which distances it is absurd to hope for penetration of thick armor.

Second. No battle ship constructed or designed will carry a sufficient number of armor-piercing projectiles to seriously harm the unarmored parts even of an adversary of equal strength maneuvered at

a range outside of the torpedo zone, and the proof of this is found in our record against Cervera's fleet at Santiago, where at moderate ranges less than 2 per cent of our 12 and 13 inch projectiles scored. This percentage of hits, with the results secured by 15 hits with 12-inch shells on the *Tzarevitch* in the engagement of August 10, 1903, demonstrates that even 750 armor-piercing shells will not be sufficient in a magazine of a battle ship.

Third. Armor-piercing shells striking against turrets have no effect whatever upon the personnel by concussion because of the small amount of comparatively weak explosive which they contain. Neither will they have destructive effect upon the ship if exploded in the water near her for the same reason.

These are some of the serious drawbacks which the armor penetration idea entails and which would disappear by the use of outside explosive shells were their efficiency equal to that claimed for them and which would be proven by this test.

Among the claims for the latter are the following:

First. Heavily charged explosive shell striking the thick armor belt of the battle ship will blow inward an entire plate, filling at once with water the compartment corresponding thereto, thereby seriously, if not completely, impairing the buoyancy of the ship. No absolute proof of this effect can be given, although two plates have been tested, as the resistances opposing their movements were not designed with regard to those presented by the frames and bulkheads in a ship's side, and although the first plate was blown 17 feet through its sand and oak backing, the result was as inconclusive as in the second test, in which the plate and backing was only moved about 6 inches, because the latter was constructed with the idea to hold it perfectly immovable in order to test the plate, which it was understood could not be broken if the backing moved, as in that event the target became a recoil device. In this latter test pressure gauges placed in front of the plate gave authentic records, which show that there resulted on an area 16 feet in diameter a total pressure of 70,000 tons. It is submitted that a battle ship's side will not withstand 10 per cent of this pressure on such an area, as a computation will show. Further tests are to be made later to demonstrate the effect of such shell upon the under-water section of a ship, but when completed will be only theoretical proofs, and all of this matter concerning the tests already made by the Army is introduced to forestall the employment of the reports relative to these tests, which are misleading as to the facts and conclusions. It is desired that my replies thereto be considered with such reports if it is deemed necessary to go into the history of this case.

Second. The explosion of such shell anywhere on a battle ship will destroy all life aboard by the concussion and the noxious fumes generated. Proof of this is abundant and it can be deduced by well-known formula as to gas pressure from any of the dynamite explosions concerning which the amount of explosive and the range of destructive effect has been given. This feature should be practically demonstrated in this test by placing domestic animals in different parts of the ship occupied by officers and men in an engagement.

Third. When firing at ranges where the ricochet is impossible fuses will be employed with these shells whereby they will explode after

entering the water a certain distance. This feature makes all such shells veritable mines or torpedoes, outranking either as to the distance at which they will be destructive, as they will possess no air chamber of from 20 to 30 cubic feet contents to cushion and deaden the effect of their explosion. This will give such shell a destructive range of 50 feet from the ship's side and add more than threefold to the chances of destroying a ship. When firing these shells within a ricochet range a fuse is not employed and all line shots which fall short will score, which will add still other advantages to such shell.

Fourth. Although it has been demonstrated that these shells may be safely fired under the heaviest pressure ever employed, or even up to the highest pressures that the guns will stand, it is believed advisable to reduce this pressure to about 10 tons per square inch, which will give to the guns a life many times in excess of that which they now possess as necessarily curtailed in order to make armor-piercing shells efficient even at short range. This advantage would save this Government millions of dollars in the construction of new guns to take the place of those worn out if the present system is continued, and might save the nation's honor were a prolonged war fought out on the sea to be the fate of this nation.

Fifth. While this measure is urged as being especially important to the Navy, as affecting the design of battle ships, the determination of this question by your Department effects an equally important change in the coast defenses of our country, dispensing with most of those new ones which are now urged as a result of the failure of the armor-penetration idea. As an example is cited the proposed bill in the present Congress for an island upon which fortifications are to be built to guard the entrance to Chesapeake Bay, which will cost millions of dollars, and which is entirely unnecessary if the claims for outside explosive effect are substantiated.

Now, while it has not been attempted to show all of the advantages accruing through the use of shell for outside explosive effect, it is believed that the presentation has been sufficiently strong to warrant the fullest test to be made and regardless of cost. A precedent for such a test is to be found in tests in nearly every country having a Navy; for example, England completely destroyed and rebuilt and redestroyed and rebuilt the battle ship *Belle Isle* to determine the effect of shell and torpedoes upon such ships. We destroy by test one armor plate out of each lot received. We do the same with projectiles and powder, using up in this way each year materials worth many times the possible cost of this test, and does anyone doubt the wisdom of such tests, Manila and Santiago would be the reply. Shall we then leave this more important test unmade because of any false ideas of economy?

It is sincerely hoped that, as understood, you will refer this important matter at once to a competent board with instructions to report on the same within a week, so that the report, together with the bill, may be placed before the Naval Affairs Committee for action before their bill is introduced to the House. I should be pleased to appear before your board to substantiate the claims made if they are disputed, and trust that this may be done to save argument in Congress. It is believed that the Department should welcome this opportunity to settle this long-mooted question, which involves the usefulness of

our entire Navy. In case of failure to do serious harm to the *Texas* the Department would emerge from the test even more secure in their high position in the public estimate. On the other hand, should the *Texas* suffer serious damage the public would recognize the progressiveness of the Department and give it the proper credit for the millions of dollars which would be saved through the discovery of this information. Hence it is believed that the bill should receive an early and favorable consideration.

Respectfully submitted.

SECRETARY OF THE NAVY.

[No. 41.]

**PUBLIC WORKS, WASHINGTON NAVY-YARD.—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, January 15, 1907.

SIR: I have the honor to inclose herewith a copy of a letter of the 9th instant, addressed to the Bureau of Ordnance, Navy Department, by the commandant and superintendent of the Naval Gun Factory, navy-yard, Washington, and of indorsements thereon by the Chiefs of the Bureaus of Ordnance and Yards and Docks, respectively, in which attention is called to the absolute necessity of legislation at this session of Congress to insure a railroad connection with the Washington Navy-Yard on and after January 1, 1908, when the grade-crossing law goes into effect.

In view of the statements contained in the correspondence mentioned, the Department earnestly requests that favorable action be taken on the items "Purchase of land, \$161,872," and "Railroad bridge and tracks, \$40,000," under the heading "Public works, Bureau of Yards and Docks," subhead "Navy-yard, Washington, D. C.," contained in this Department's estimates of appropriations required for the service of the fiscal year ending June 30, 1908.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.

UNITED STATES NAVY-YARD,
Washington, D. C., January 9, 1907.

SIR: I would respectfully request to be informed what steps are being taken to insure a railroad connection with the yard on and after January 1, 1908. I understand that on that date all grade crossings in the District of Columbia will be abolished.

2. As far as I am informed, no definite plan has been agreed upon between the Bureau of Yards and Docks, the District Commissioners, and the Pennsylvania Railroad.

3. I understand that there is an item in the estimates submitted to Congress which would be needed in case it is decided that the tracks are to come into the yard by the southeast corner. Some weeks ago the Pennsylvania Railroad made a survey, having this in view.

4. Should it be decided that the connection shall be made that way, then every effort should be made to get an appropriation for the two water blocks estimated for, so that this water front shall not fall into the hands of the Pennsylvania Railroad Company. We are even now short of berthing space for vessels, and if the railroad company should get hold of this water front the Government would eventually have to pay an enormous price for it.

5. Should a law be passed to retain the present connection, then no appropriation will be needed.

6. It is of the utmost importance that this matter should be settled by the present Congress. The loss of a railroad connection would be fatal to this establishment and also to Indian Head. During the last fiscal year 10,000 tons of finished product were shipped from this yard and 50,000 tons of coal alone received, in addition to many hundreds of other shipments.

Respectfully,

E. H. C. LEUTZE,
*Captain, U. S. Navy,
 Commandant and Supt. Naval Gun Factory.*

The BUREAU OF ORDNANCE, NAVY DEPARTMENT,
 Washington, D. C.

[First Indorsement.]

DEPARTMENT OF THE NAVY,
 BUREAU OF ORDNANCE,
 January 10, 1907.

1. Respectfully referred to the Bureau of Yards and Docks for its information and such further action as it is possible to take.

2. It is very important to this Bureau that steps should be taken to insure a railroad connection with the yard on and after January 1, 1908, when the grade-crossing law goes into effect. It is therefore of the utmost importance that this matter should be settled by the present Congress.

3. Final return of papers to this Bureau is requested.

N. E. MASON,
Chief of Bureau of Ordnance.

[Second Indorsement.]

DEPARTMENT OF THE NAVY,
 BUREAU OF YARDS AND DOCKS,
 January 12, 1907.

Respectfully forwarded to the Department, inviting attention to the facts presented in the attached letter and the first indorsement, showing that legislation is absolutely necessary at this session of Congress in order to retain railroad communication to the Washington Navy-Yard next year, the importance of which is touched on in the sixth paragraph of the attached letter.

2. The law abolishing grade crossings in the District of Columbia is dated February 28, 1903, is found in volume 32, Statutes at Large, page 909, and requires the completion of the work within five years after its passage. It will thus have the effect of cutting off the

present railroad connection near the northwest corner of the yard on February 28, 1908, unless—

First. Special legislation is obtained excepting the present spur track leading to the Washington Navy-Yard from the provisions of this law, or,

Second. Obtaining such appropriation in the naval bill as will permit a new railroad connection being obtained.

3. This second course is preferable, as, under the rearrangement of railroad tracks outside of the yard now under way in that part of the city, it would be difficult to obtain an entry to the yard under the new conditions of grades.

4. Assuming that the present railroad connection will be abandoned, due to the enactment of the present law, the District Commissioners and the Pennsylvania Railroad are agreed in recommending that access to the navy-yard by railroad be obtained at the southeast corner of the yard, along the water front, which is the most feasible way after the present law goes into effect. The Bureau concurs in this proposition, and has included in the annual estimates submitted to the Department an item of \$40,000 to cover the cost of the bridge it will be necessary to construct to cross the marine railway and in making the necessary change in tracks. An item of \$161,872 has also been included for the acquisition of a tract of land along the water front at the new point of entrance of the railroad track, which is essential, primarily for the handling of cars at that point, and, secondarily, is very necessary for additional berthing space, as mentioned in the fourth paragraph of the attached letter.

5. Should a law be passed permitting the retention of the present railroad connection, the above estimates could be eliminated, but in the absence of such special legislation the importance of securing these items at the present session of Congress for the Washington Navy-Yard can not be overstated.

6. It is respectfully suggested that a copy of these papers be transmitted to Congress with the earnest recommendation that favorable action be taken on the estimates mentioned hereinbefore.

H. H. ROUSSEAU,
Chief of Bureau.

NAVY DEPARTMENT,
Washington, January 25, 1907.

MY DEAR MR. FOSS: In compliance with your verbal request for additional data as to the reasonableness of the amount requested to be appropriated for the purchase of certain land adjoining the Washington Navy-Yard, I transmit herewith the inclosed letter from the Chief of the Bureau of Yards and Docks on the subject.

Very truly, yours,

V. H. METCALF, *Secretary.*

Hon. GEORGE EDMUND FOSS,

Chairman Committee on Naval Affairs,

House of Representatives.

DEPARTMENT OF THE NAVY,
BUREAU OF YARDS AND DOCKS,
Washington, January 22, 1907.

SIR: In accordance with your verbal order of the 19th instant, I have the honor to report the following results of an investigation as to whether the Government owns or controls any land above or below water in the vicinity of the Washington Navy-Yard that could be used as a right of way for railroad tracks in securing railroad communication to the navy-yard after the present railroad connection at the southeast corner of the yard shall have been given up through the enactment of the law abolishing grade crossings in the District of Columbia, effective February 28, 1908.

2. A letter is inclosed, marked "Exhibit A," from the real-estate agent who holds options on squares Nos. 955 and 979, inclosing a report on the title and extent of the property in question by the District Title Insurance Company, marked "Exhibit B." These two papers taken together would indicate that some little time ago the Pennsylvania Railroad Company prepared a map showing the extension of their tracks into the navy-yard at the southeast corner. On this map squares 955 and 979 were shown, incorrectly as it now appears, to be limited by the extension of Water street. From the attached letters and other data it would appear that this was clearly an error, and that squares 955 and 979 extend to the water.

3. The Engineer Commissioner's office of the District was visited yesterday for information. Nothing was learned except that there was but little doubt that property abutting on the water front without a street in front of it had riparian rights.

4. In the office of the District surveyor, Mr. M. C. Hazen, assistant surveyor, went through the records of his office, where an original map, dated 1800, was seen, and which he said was the record he consulted in all cases of doubt. A sketch tracing therefrom is attached hereto, marked "Exhibit C," showing the squares in question, 955 and 979. The shore line at that time is drawn as a heavy black line. The small incomplete squares between O street and the river, numbered, respectively, 955 and 979, comprise the property recommended for purchase as an extension of the navy-yard.

5. It will be noted that Water street does not run as far as this property, and that the line of this street produced would very nearly intercept O street. It does not seem probable that it was ever contemplated to extend it along the shore line farther than square 1001, which is shown as a complete square. The evidence obtained from this old map thus indicates that the Government does not own the water front in front of squares 955 and 979. Since 1800 these squares have gained considerably by accretions and filling in. The District surveyor's office states that there have been no further subdivisions in that vicinity, however, and all accretions have accrued to the squares in question.

6. From the office of the Chief of Engineers a tracing was obtained showing the harbor lines in the vicinity of the navy-yard, and a blue-print copy accompanies this report, marked "Exhibit D," and verifies the statement that there is no street projecting between squares 955 and 979 and the water front.

7. In the office of Mr. Crawford, general agent of the Pennsylvania Railroad Company, a blueprint plan, No. 9275, marked "Plan and profile showing proposed connection with the United States navy-yard, Washington, D. C., April 12, 1905," was seen. Mr. Crawford and Mr. Weller, the agent heretofore referred to, both state that this map is in error in showing Water street to extend to the navy-yard. Mr. Crawford said he would take this matter up immediately with the main office of the Pennsylvania Railroad Company and secure authoritative information in regard to this error, which he would be able to present to the Navy Department within a few days. All the evidence obtained by the Bureau corroborates the statement with reference to the error in this map of the Pennsylvania Railroad Company. Mr. Weller wrote the Engineer Commissioner on June 29, 1905, calling his attention to this error and asking that it be corrected, as it might do damage to the owners of the squares in question. Attention is respectfully invited to the further statement of facts made with reference to this matter in Mr. Weller's letter of January 21. (Exhibit A.)

8. Aside from all information in regard to this matter at the present time, of course if any claim could be established to any water front by the Government that would obviate the necessity of purchasing any more land, no payment would be made for the purchase of same, and any money appropriated would revert to the Treasury.

9. In case no appropriation shall be made by Congress at this session, on account of the expiration of the option on the land in question at an early date it is reasonable to presume that a portion of it will be acquired by the railroad company, so as to secure entrance to the navy-yard, and all chance of obtaining an increased water frontage to the navy-yard, which is so much needed at this point, will be lost, and no space will be available for the handling and storing of cars except in the present limits of the navy-yard, which, aside from being almost impracticable, will result in inconvenience and much increased cost in the operation of the yard.

Very respectfully,

H. H. ROUSSEAU,
Chief of Bureau.

The SECRETARY OF THE NAVY.

EXHIBIT A.

[Joseph I. Weller, attorney and counselor at law, 602 F street NW., Washington, D. C.]

JANUARY 21, 1907.

DEAR SIR: In re eastern railroad connection for the local United States navy-yard, I beg to state that I to-day communicated with Joseph Crawford, esq., general agent for Pennsylvania Railroad, calling his attention to an error in the map prepared by his company, which shows "Water" street south of squares 955 and 979, whereas there was no such street existing, and that said squares had riparian rights with the south boundaries of said squares bordering on the Anacostia River. Mr. Crawford said that he did not know where the naval committee secured such a map, but that his company did prepare such a map to show how the railroad would be extended, and that there was an error made in running "Water" street through said squares, and he was of the opinion that there was no "Water" street west of Eleventh street; that he had forwarded

my letter calling attention to this error to his company, and would have a corrected map made and ready for use in a couple of days.

I also wrote Colonel Biddle, Engineer District Commissioner, calling his attention to the use of said map, and further calling his attention to the fact that I wrote him June 29, 1905, asking that this map be corrected, as it might work damage to the owners of said squares.

There can be no doubt that these squares extend to the Eastern Branch of the Potomac River for many reasons, of which these are some, namely: Thatcher's Founding of Washington, which is a verbatim copy of the records of the titles to the District of Columbia, now found in the archives of the War Department, showing the division of the district between the Government and the original "proprietors," shows the divisions thus: "April 7th, 1797. Square 955, lots 1-5, entire square, to Daniel Carroll, of Duddington. All Eastern Branch water lots."

"July 2, 1800. Square 979, lots 1-5, entire square, to the public. All Eastern Branch water lots."

These records are still in the War Department and have never been turned over to the District government.

When the navy-yard extended west and purchased several squares in 1903 this same question was raised about "riparian rights," although the case of the properties sold was not as strong as this case, and the point was decided in favor of the property owners without any contest on the part of the Government.

As confirming the position of the owners of squares 955 and 979 (it must be borne in mind that Water street does not exist between Ninth and Twenty-first streets SE.), a recent award of damages to the owners for ground taken by the Government for the bridge abutments for the new Anacostia bridge, in square south of square 1001, the jury was especially charged by the court to consider the riparian rights of the owners in making up the award, and this could not have been done if Water street existed. This would be the same court before which the question of title to squares 955 and 979 would be tried if this matter came to an issue between the owners and the Government.

This property has always been dealt with as water-front property by the owners from the laying out of the city to the present time, and the "King" plats and the "Dermott Tin Case" plats, which were taken as an authority when the cases of the river front of the Potomac River were adjudicated, show said squares as running to the river with no streets or land intervening. Again, if Water street was continued from Twelfth street westward to the navy-yard wall these squares would have contained a very small area; in fact, square 979 would have been almost wiped out.

This question of doubt has arisen on account of the railroad company running arbitrarily a line on Water street, which does not exist in fact, and could not exist in theory according to all the plans and history of the laying out of the city, and I have the promise that this error will be corrected. But for the sake of argument, supposing the position of the railroad company was true and Congress appropriated the purchase money. Before this purchase was closed with the owners the title of said owners to the property claimed would have to be certified by the Department of Justice to the Navy Department and to the Treasury Department, and if said titles were not good then no money would be paid.

Inclosed herewith please find an opinion of title to squares 955 and 979 by the District and the Washington Title Insurance companies, which confirms the stand of the owners of said squares in this matter.

One of the owners of part of this property has given me notice that when his option to the Government to purchase his property expires with this session of Congress that he will improve same by building a wharf—in fact, the plans have been prepared and part of the material for the wharf is now on the property—unless the property is purchased under said option.

Hoping you will be able to correct the erroneous impression given as to Water street affecting said squares, I am,

Yours, very respectfully,

JOSEPH I. WELLER.

P. S.—Please return inclosed opinion of title companies when you have finished with same.

Admiral H. H. ROUSSEAU, U. S. Navy,
Chief Bureau of Yards and Docks, Department of the Navy.

EXHIBIT B.

[The District Title Insurance Company, the Washington Title Insurance Company, 610 Thirteenth street NW.]

WASHINGTON, D. C., *January 21, 1907.*

DEAR SIR: I have made as complete an examination as the time would allow as to the matter of the title to the land lying south of the south of the southern boundaries, as shown on original maps of the city of Washington, of squares numbered 955 and 979, in said city, and find that in no plan is any square or lot laid out between said southern boundaries and the channel of the Eastern Branch of the Potomac River.

While the question as to the ownership of riparian rights appurtenant to the land abutting on the Eastern Branch of the said Potomac River has never been judicially determined, it was laid down by the Supreme Court of the United States in the case of *Morris v. United States*, reported in No. 174 United States, 196, as a principle governing the ownership of similar rights on the Potomac River that where the land in question was separated from the river by a street laid out upon the official plans of the city that no riparian rights in the owner of said land existed. The boundary lines of said squares 955 and 979 are not satisfactorily shown on any of the earlier maps, but the contour as shown representing said boundary appears to preclude any question of a street following said line.

Such being the case, in my opinion the rights of the owners of the said squares 955 and 979 exist to high watermark of the said Eastern Branch of the Potomac River.

Yours, very truly,

THOMAS P. WOODWARD,
Title Officer.

JOSEPH I. WELLER, Esq.,
602 F street NW, City.

BUREAU OF YARDS AND DOCKS,
Washington, D. C., January 25, 1907.

SIR: The Bureau has the honor to submit herewith additional data requested by the chairman of the Committee on Naval Affairs, House of Representatives, in regard to the amount requested to be appropriated for the purchase of the land comprised in squares 955 and 979 as an addition to the Washington Navy-Yard.

2. There is inclosed herewith, marked "A," a statement giving the number of square feet in each square and other data. The option held on this property is at the rate of 75 cents per square foot, plus the cost of improvements, these latter amounting to \$8.095. The total number of square feet amounts to 205,036. In addition, by closing Ninth and Tenth streets from O street south, and including the area acquired between the established bulkhead line and the wharf line, the Government, in purchasing this property, will acquire 224,439 square feet additional, making a total area of 429,475 square feet, or nearly 10 acres, the unit cost for this whole area being thus reduced to about 37½ cents per square foot.

3. Undoubtedly a considerable portion of the value of the land in question is due to riparian rights which they appear to possess.

4. The following information has been obtained in regard to the value of land in the vicinity of these squares:

5. Three years ago the Government acquired, on the west side of the navy-yard, an additional area amounting to a little over 14 acres (inclusive of streets closed), for which the price paid was \$100,200. For several years estimates had been submitted by the Navy Department for a greater amount than the purchase price, based on a price of 40 cents per square foot. On this area the riparian rights of

the owners was in doubt. It was uncertain whether the owners held their property in fee simple or whether the Government had some rights to the water front in question, the owners being allowed the use of same conditionally. The estimate submitted by the Navy Department was reduced by Congress to a figure equivalent to about 29½ cents per square foot, and owing to the doubtful title and to avoid the delays and expense incident to condemnation proceedings the owners accepted the price named in the appropriation. The appropriation covered the purchase of all but two lots, which were acquired by condemnation proceedings. These two lots included 33,098 square feet, and the price paid was \$1,444.15, or 42½ cents per square foot. These were interior lots without water frontage.

6. In 1905 the Government acquired in the vicinity of square 979 an area of about 7,200 square feet for \$3,922.81, or at a cost of 54½ cents per square foot, for use as an abutment of the Anacostia Bridge. The land purchased had a water frontage of only about 90 feet and a very much greater depth, which would tend to reduce the average price. Furthermore, this land is not nearly so valuable a square as 955 and 979, which it is proposed to purchase, for the reason that the property purchased for the bridge abutment is on the east side of Anacostia Bridge, and therefore not as accessible for commercial purposes as squares 955 and 979, which are immediately on the line of the river improvements; and the work for deepening the channel is now in progress, under the appropriations for the reclamation of the Eastern Branch in front of said squares, and only to the Anacostia Bridge, this work being actively conducted by the United States Engineer Department. Moreover, the immediate proximity of said squares to the navy-yard assures the maintenance of deep-water facilities for these squares should they be used for commercial purposes. The jury of award for this land was composed of three well-known citizens. This transaction is the most recent and one that is the most nearly comparable with squares 955 and 979 in question. In this case the jury was instructed by the court that riparian rights are property and in making award should be taken into account. Within the past year there has been a sale of corner lot, Fourth and M streets SE., to the District of Columbia, for a school site, amounting to 20,772 square feet, for the sum of \$7,931.75, or 38.2 cents per square foot. This would indicate the value of property in that district without water rights. The Bureau is also informed that lots 14, 15, and 16 of square 954, without water frontage, were sold fifteen years ago by Capt. Valentine McNally, Ordnance Department, U. S. Army, for 60 cents per square foot.

7. In the inclosure, marked "A," it will be noted that options are held for the purchase of all five lots in square 955, and lots 3, 4, and 5 in square 979, all at 75 cents per square foot, plus the value of improvements, amounting to \$8,095. The owners of lots 1 and 2 in square 979 have refused to give an option on their property. The agent who has secured the option on all remaining lots states that the owners of these two lots have indicated that they will not give an option, but that they will act in accord with the owners of the remaining lots in case an appropriation for the purchase is made by Congress. It will be noted particularly that these options expire with the Fifty-ninth Congress, and unless some action is taken the owners state they will proceed to improve their property, so that any subse-

quent action in the direction of the purchase of this property can not be taken except at much increased cost over present values.

8. Should there still be doubt in the minds of the Committee on Naval Affairs as to the propriety of appropriating the whole amount recommended for this item of the naval bill, it is respectfully suggested that the testimony of Mr. James F. Oyster, 900 Pennsylvania avenue, and the other members of the jury who made the award in the Anacostia Bridge abutment case, mentioned hereinbefore, as well as that of others familiar with real estate in that vicinity, be sought before final action is taken.

9. The value of this property for its water frontage as an addition to the Washington Navy-Yard is unquestioned, and its need is pressing and has been gone into at length in prior communications. It is strongly hoped that it will secure the favorable consideration of Congress.

Very respectfully,

H. H. ROUSSEAU,
Chief of Bureau.

The SECRETARY OF THE NAVY.

A.

Data regarding area and price concerning squares 955 and 979, navy-yard, Washington, D. C.

The figures given below are in accordance with the latest harbor line fixed by the War Department. The areas given are as calculated by the surveyor's office, District of Columbia, January, 1907:

	Square feet.	Price per square foot.	Amount.
Square 955, lots 1, 2, 3, 4, and 5: Contents to bulkhead line.....	122,496	\$0.75	\$91,872
Square 979, lots 1, 2, 3, 4, and 5: Contents to bulkhead line.....	82,540	.75	61,905
Square 979, cost for piles, wharf plans, 5 one and two story frame dwellings, 1 three-story stone mill, and 1 frame boathouse.....			8,095
Total estimate of appropriation submitted.....	205,036		161,872

United States holds options for the purchase of all of square 955, at 75 cents per square foot, amounting to \$91,872; and lots 3, 4, and 5, in square 979, containing 53,708 square feet, at 75 cents per square foot, amounting to \$40,281, plus cost of piles and wharf plans, \$4,719, total named in option being \$45,000.

Owner of lots 1 and 2, in square 979, containing 28,832 square feet, at 75 cents per square foot, amounting to \$21,624, plus cost of improvements on these lots, amounting to \$3,376, total being \$25,000; owners refused to give option, claiming ground to old harbor line, which would give them about 10,000 more feet of ground.

These options expire with the Fifty-ninth Congress, when the owners state they will improve said squares by erecting wharves unless the property is purchased under said options.

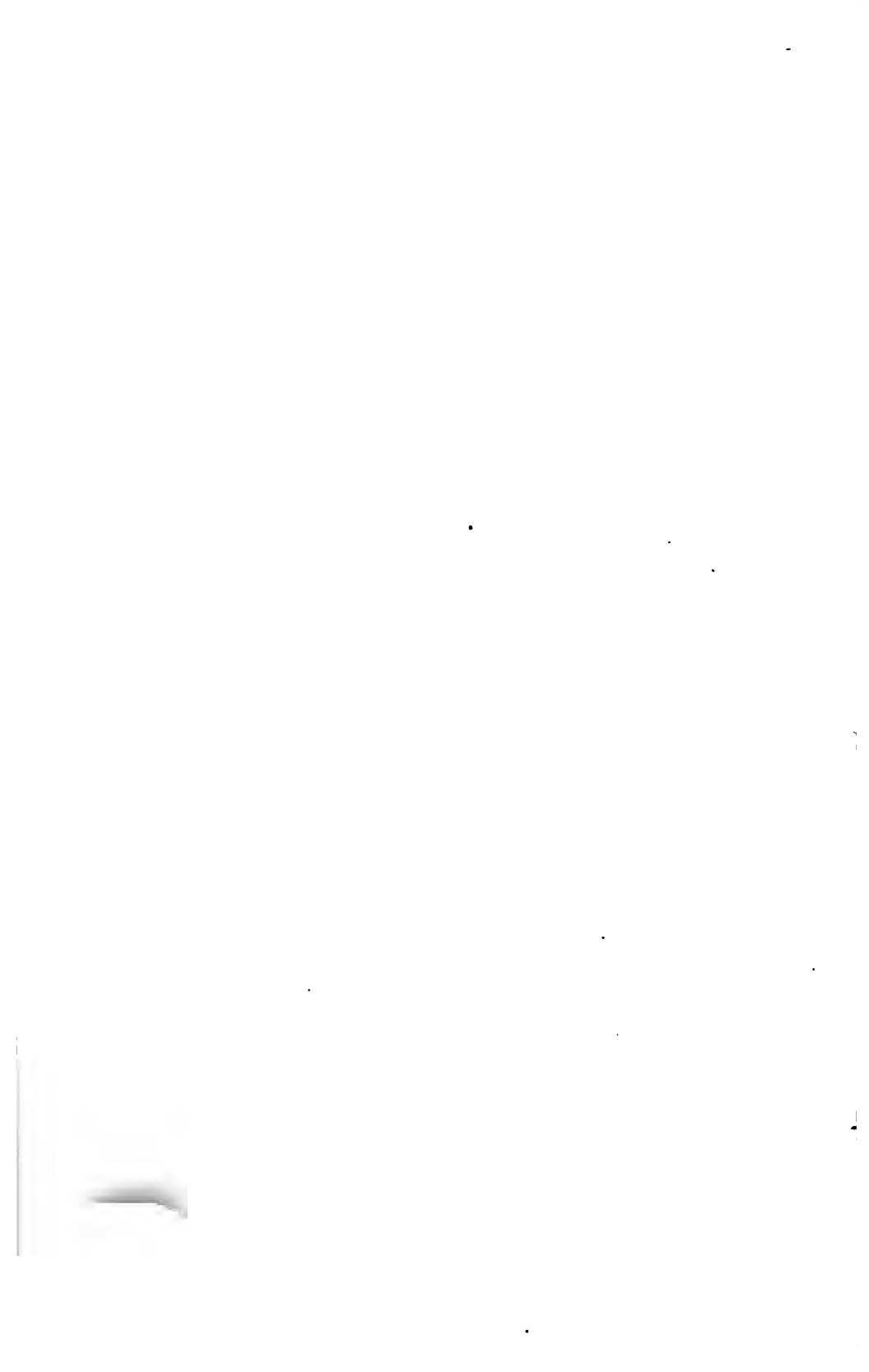
	Square feet.
Square 955: Contents from bulkhead line to wharf line.....	48,474
Square 979: Contents from bulkhead line to wharf line.....	55,190
Ninth street: Contents from south building line to wharf line.....	68,175
Tenth street: Contents from south building line to wharf line.....	52,600

Total obtained by United States without cost.....	224,439
Contents of squares to be purchased.....	205,036

Total area of ground obtained..... 429,475

Making a cost per square foot of about 37½ cents.

JANUARY 24, 1907.



[No. 42.]

**CIVIL ESTABLISHMENT, BUREAU OF SUPPLIES AND ACCOUNTS,
NAVY-YARD, BOSTON—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, January 24, 1907.

SIR: I have the honor to request that when the naval appropriation bill is taken up by your committee there be inserted under the head of "Civil Establishment, Bureau of Supplies and Accounts," an item of \$1,200 for annual compensation for the bookkeeper at the navy-yard, Boston, Mass., whose compensation now is \$1,017.25 per annum.

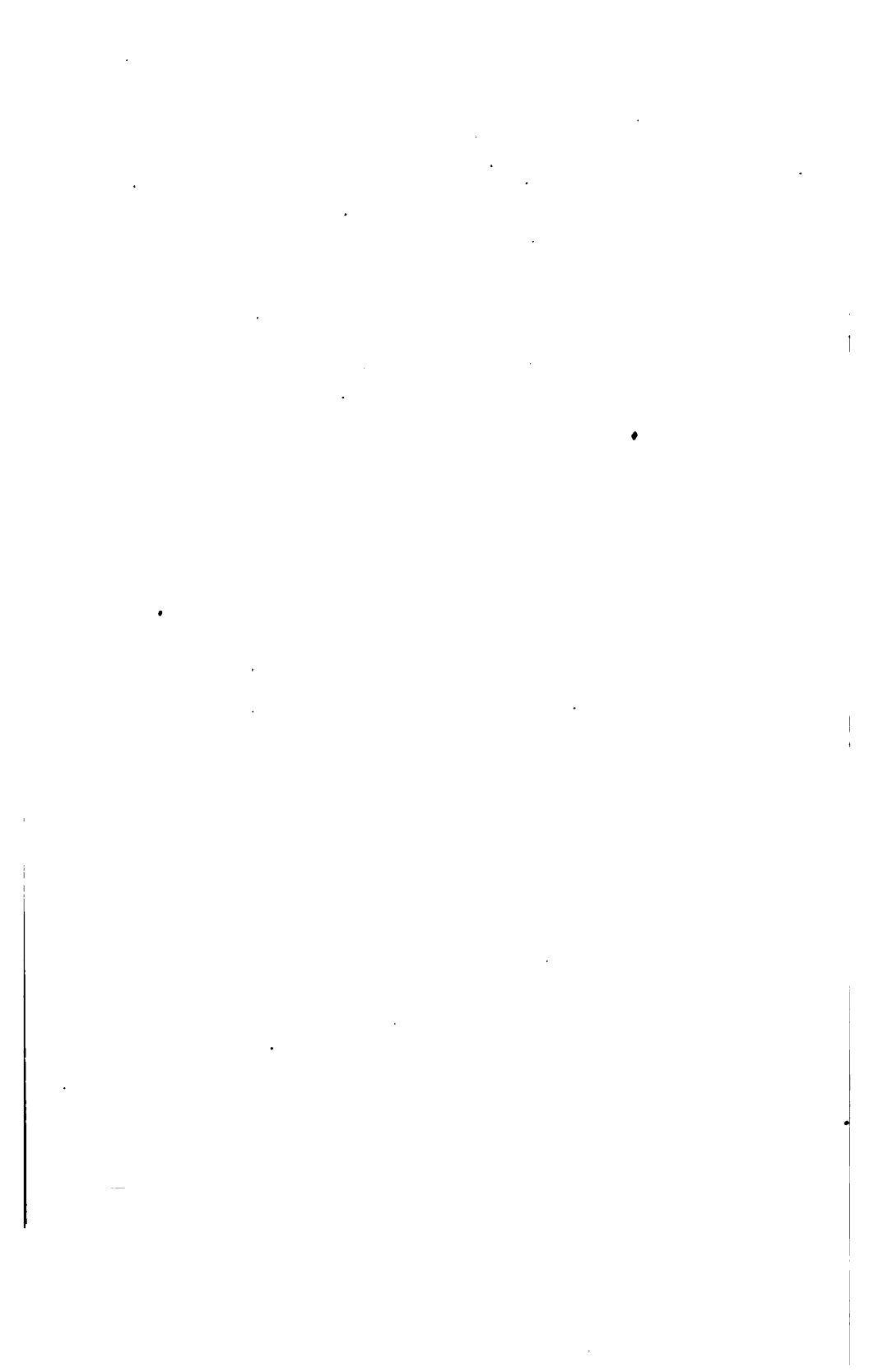
The navy-yards at Portsmouth, League Island, Norfolk, Mare Island, and Puget Sound are each allowed two bookkeepers at \$1,200 per annum (New York being omitted in the foregoing list, because on account of its volume of business it is scarcely to be compared with other yards), whereas at Boston yard only one of the bookkeepers employed receives \$1,200, the other one receiving but \$1,017.25.

The work assigned to the bookkeeper, Boston yard, to whom the proposed increase would be allowed is quite as important as that assigned to similar bookkeepers at the other navy-yards named, and inasmuch as the cost of living at Boston is just as great as at the several other places referred to, it is deemed but just that the pay at all of these yards should be equalized as indicated for identical services.

Very respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE E. FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*



[No. 43.]

**RELIEF OF JAMES J. MAHEGAN (H. R. 13719)—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, January 23, 1907.

SIR: Referring to your communication of the 21st instant, requesting to be furnished, for the use of the Committee on Naval Affairs, in the consideration of the bill (H. R. 13719) to correct the naval record of James J. Mahegan, with the views and recommendations of the Department as to the propriety of the legislation proposed, I have the honor to state that it appears from an examination of the records that James J. Mahegan enlisted in the Navy at New Bedford, Mass., July 11, 1861, as a landsman, for three years; served on board the U. S. S. *Ohio*, *Sabine*, and *Richmond*, and deserted from the last-named vessel August 14, 1863.

On February 13, 1901, the case of Mahegan was considered by the Department with a view to the removal of the charge of desertion entered on the rolls of the *Richmond* against him and decided adversely, owing to the fact that the case is not one in which relief can be granted under the provisions of the act of Congress "to relieve certain appointed or enlisted men of the Navy and Marine Corps from the charge of desertion," approved August 14, 1888, as amended May 24, 1900, because the entry against him being a proper one, the Department was without authority otherwise to remove the charge.

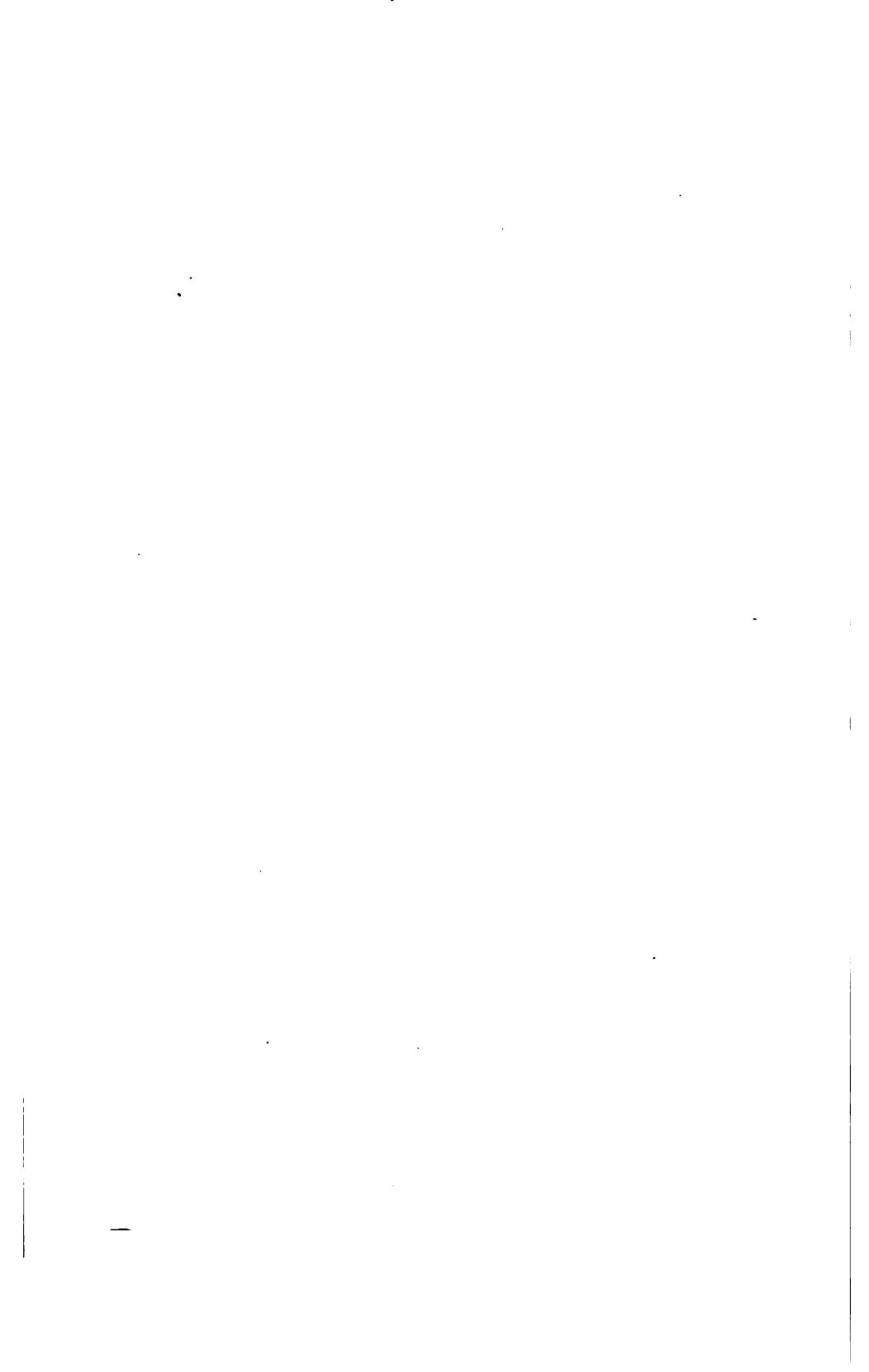
The Department sees no reason for special legislation in this case. The question whether or not such relief should be granted the applicant would appear to be a matter for the determination of the Congress.

In this connection the attention of the committee is invited to the fact that the discharge provided for is described in line 6 of the bill as an "honorable discharge." This term has, under existing law, a special significance in the Navy, and such discharge entitles a man, when issued upon the expiration of an enlistment for four years as a testimonial of fidelity and obedience, to certain pecuniary benefits. It is suggested, therefore, if the committee should determine to report the bill favorably, that the term "discharge," instead of "honorable discharge," be used.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

Hon. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.



[No. 44.]

**SUPERINTENDENT OF TEAMS, BUREAU OF YARDS AND DOCKS,
NAVY-YARD, NEW YORK—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, January 22, 1907.

SIR: I have the honor to inclose herewith copy of a letter of the 21st instant, addressed to the Department by the Chief of the Bureau of Yards and Docks, in which he refers to the item of "One superintendent of teams at \$4 per diem, \$1,256," under the heading, "Navy-yard, New York, N. Y.," which provides pay for three hundred and fourteen days, and does not include any pay for Sundays; invites attention to the fact that for about twenty years past the estimates for the Portsmouth, N. H., Navy-Yard have included an item, "One foreman laborer and head teamster at \$4 per diem, including Sundays;" states it is understood that the duties at the Portsmouth Navy-Yard are of the same general character as at the New York Navy-Yard, except that at the latter yard there are a larger number of teams to look after, and that for uniformity and to provide adequately for the service rendered it would appear very desirable that the estimate for pay of the superintendent of teams at the New York Navy-Yard include an allowance for pay on Sundays the same as at the Portsmouth Navy-Yard, and recommends that this allowance be secured at the present session of Congress, if practicable, by the insertion, in lieu of the item previously requested, of an item reading as follows: "One superintendent of teams at \$4 per diem, including Sundays, \$1,484."

In view of the facts as stated by the Chief of the Bureau of Yards and Docks the Department respectfully submits this matter to the committee with the request for favorable consideration.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT,
BUREAU OF YARDS AND DOCKS,
January 21, 1907.

SIR: Referring to the estimates submitted by the Bureau under "Civil establishment" for the fiscal year ending June 30, 1908, the Bureau has the honor to invite the Department's attention to the

item under "Navy-yard, New York," reading as follows: "One superintendent of teams, at \$4 per diem, \$1,256," which provides pay for three hundred and fourteen days and does not include any pay for Sundays.

2. For the past several years the civil engineer at the New York Navy-Yard has recommended that this employee be allowed pay for Sundays, inasmuch as he is in charge of the yard stables and is required to be on duty on Sundays. This recommendation has received the approval of the commandant of the New York Navy-Yard.

3. In this connection attention is invited to the fact that for about the past twenty years at the Portsmouth Navy-Yard the estimates have included an item for "One foreman laborer and head teamster, at \$4 per diem, including Sundays." It is understood that the duties at the Portsmouth Navy-Yard are of the same general character as at the New York Navy-Yard. At the New York Navy-Yard, however, there are a larger number of teams to look after.

4. For uniformity, and to provide adequately for the services rendered, it would appear to the Bureau very desirable that the estimate for pay of the superintendent of teams at the New York Navy-Yard include an allowance for pay on Sundays, the same as at the Portsmouth Navy-Yard, and the Bureau has the honor to recommend that this allowance be secured at the present session of Congress, if practicable, by the insertion, in lieu of the item previously requested, of an item reading as follows: "One superintendent of teams, at \$4 per diem, including Sundays, \$1,484."

Very respectfully,

H. H. ROUSSEAU.

The SECRETARY OF THE NAVY.

[No. 45.]

**EXTENSION OF TIME OF MAKING SUBMARINE BOAT TESTS—
DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, January 23, 1907.

SIR: I have the honor to invite your attention to the recommendation made in this Department's annual report dated November 28, 1906 (p. 19; heading, "Trials of submarines;" copy herewith), that the time, nine months from the date, June 29, 1906, of the naval appropriation act, within which the trials of the submarine torpedo boats authorized by said act shall be made for the purpose of determining the suitability of design of boats proposed for the naval service be extended for two months—that is, to May 29, 1907.

As stated in said report, the board appointed to prescribe and supervise the tests of the contemplated submarine boats determined that the only suitable place for the tests would be in the waters of Narragansett Bay, and in submitting its report expressed regret that the tests must be made in February and March because of the severity of the weather there at that time. Submarine boats are of very light construction and for the purposes of observation during trials must be fitted with one or more staffs to indicate to observers their position while under water, and any considerable quantity of ice in the bay would make it impossible to conduct the trials, while smaller quantities of ice would hinder the trials or probably injure the boats or their fittings, so as to necessitate repairs involving delays. The weather in the vicinity of Newport, R. I., during the spring is such as to cause, usually, large quantities of ice in Narragansett Bay, and it is very doubtful that tests and trials of submarine boats could be made in those waters satisfactorily, if at all, before the end of March. If they were attempted the owners of the boats offered would unavoidably incur expenses arising from delays and repairs that would not be compensated for by any advantage to them or to the Government.

Under all the circumstances of the case the Department regards it as impracticable to conduct the tests and trials in accordance with the programme arranged by the date indicated, and it therefore requests that a provision be inserted in the naval appropriation bill giving it authority to make such tests when the weather is more favorable to such purposes, but before the 29th of May, 1907.

Inclosed herewith is a draft of a clause that would give the Department the desired discretion in the matter.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE E. FOSS,
House of Representatives.

Provision proposed for insertion in naval appropriation bill.

The tests and trials of subsurface and submarine torpedo boats authorized by the naval appropriation act approved June 29, 1906, which were required by said act to be completed within nine months from the date thereof, may in the discretion of the Secretary of the Navy be made at any time before May 29, 1907.

[No. 46.]

**GUNNERY EXERCISES, BUREAU OF NAVIGATION—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, January 23, 1907.

SIR: The act making appropriations for the naval service for the fiscal year ending June 30, 1907, contains, under the subheading "Bureau of Navigation," the following provision:

Gunnery exercises: Prizes, trophies, and badges for excellence in gunnery exercises and target practice; for the establishment and maintenance of shooting galleries, target houses, targets, and ranges; for hiring established ranges, and for transportation of men and equipment to and from ranges, one hundred and twenty thousand dollars.

Inasmuch as this provision relates to gunnery exercises in the regular Navy, it is not applicable to the Naval Militia. The Department is of opinion, however, that it should be extended to the latter organization, in order that proficiency in marksmanship may be encouraged, and I have the honor, accordingly, to recommend that the provision for arming and equipping Naval Militia in the pending naval appropriation bill be amended accordingly. A draft of a provision with the amendment suggested is inclosed for the convenience of the committee in considering this recommendation.

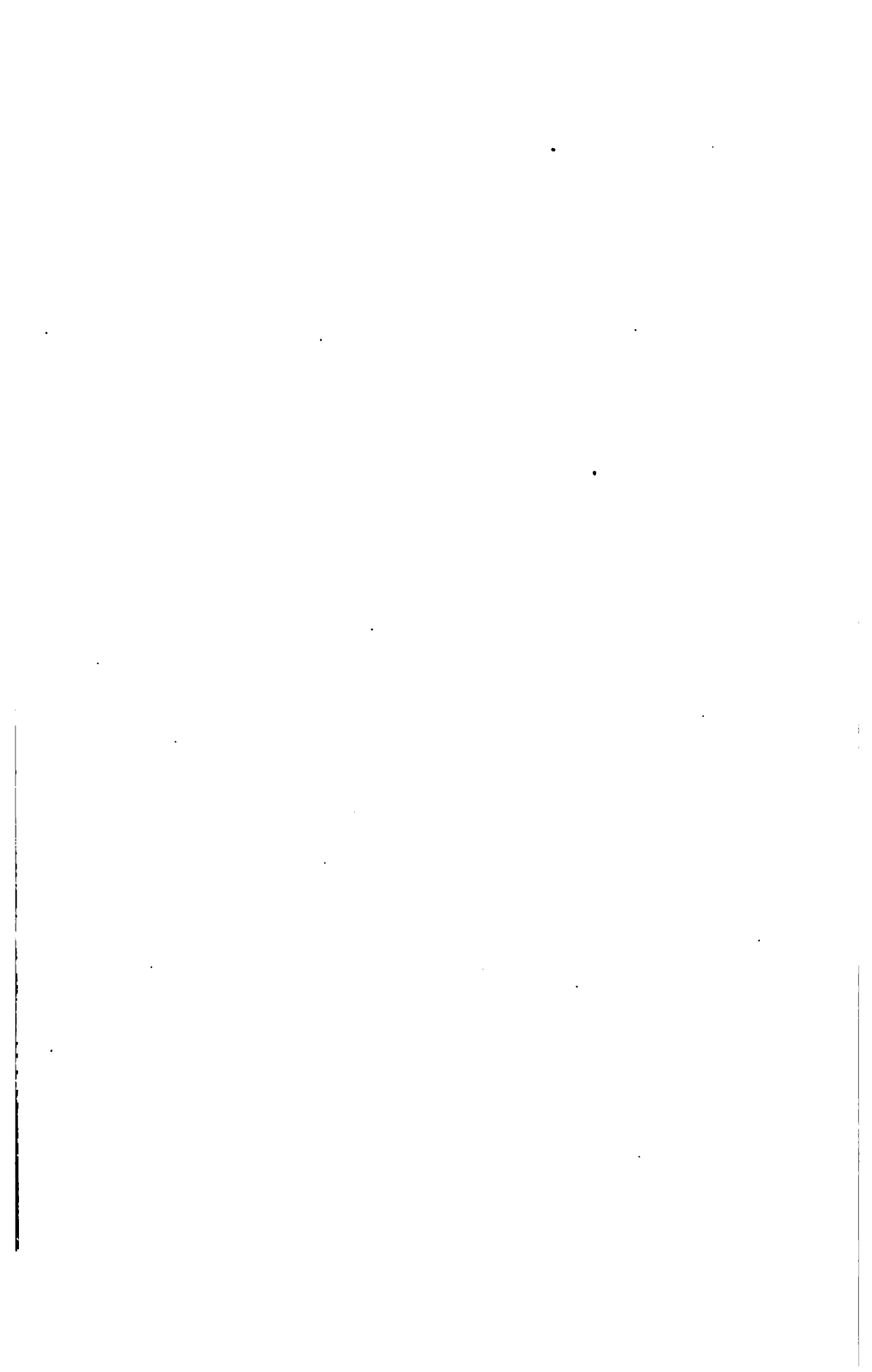
It is not believed that the additional expense that would result from the proposed amendment would be sufficient to require any enlargement of the appropriation. It is therefore not suggested that the amount of the appropriation, \$60,000, be increased.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

Naval Militia: For arms, accouterments, signal outfits, boats and their equipment, repairs to vessels loaned to States in accordance with law, fuel, and clothing, prizes, trophies, and badges for excellence in gunnery exercises and target practice, and the printing or purchase of necessary books of instruction for the Naval Militia of the various States, under such regulations as the Secretary of the Navy may prescribe, sixty thousand dollars.



[No. 47.]

SMOKELESS POWDER—DEPARTMENT LETTER.

DEPARTMENT OF THE NAVY,
BUREAU OF ORDNANCE,
Washington, D. C., January 21, 1907.

(Memorandum for the Hon. Mr. Foss, chairman House Naval Committee.)

Referring to your oral inquiry of this data relative to the amount of smokeless powder purchased per year by the Navy Department, the number of pounds manufactured by the Department, the price paid for that purchased, and the cost of that manufactured.

During the calendar year 1906 powder was purchased as follows:

	Pounds.
E. I. Du Pont Company-----	700, 000
Lafin & Rand-----	550, 000
International Smokeless Powder and Chemical Company-----	675, 000
California Powder Company-----	100, 000
Total-----	2, 025, 000

Of which 725,000 pounds, contracted for before October 1, was at 70 cents per pound and the cost of the alcohol, or approximately 74 cents per pound, while the 1,300,000 pounds contracted for since that date was at 69 cents per pound flat, alcohol to be furnished by the contractor.

During the present fiscal year smokeless powder has been purchased as follows:

	Pounds.
E. I. Du Pont Company-----	700, 000
Lafin & Rand-----	400, 000
International Smokeless Powder and Chemical Company-----	400, 000
California Powder Company-----	
Total-----	1, 500, 000

The price paid is 69 cents per pound, except for 700,000 pounds contracted for before October 1, which was at 70 cents per pound plus the cost of the alcohol.

Approximately 400,000 or 500,000 pounds in addition to the above (the amount depending on the condition of the appropriation) will be purchased during the remainder of the present fiscal year. This amount will be distributed among the various plants.

During the year ending June 30, 1906, there was manufactured at the Government powder factory at Indian Head, working at full capacity, 1,001,699 pounds, at an estimated cost of 54.6 cents per pound, this price including only actual costs and excluding interest on capital invested, certain administrative expenses, and any profit.

This rate of manufacture will be sustained through the present fiscal year.

At the Government powder factory at Newport, R. I., during the year ending June 30, 1906, there was manufactured 32,925 pounds, at an estimated cost of 78 cents per pound. The manufacture of powder at this factory has, however, been discontinued.

Roughly, therefore, the Department is purchasing 2,000,000 pounds of smokeless powder per year, at a cost of 69 cents per pound, and is manufacturing 1,000,000 pounds, at a cost of 54.6 cents per pound.

N. E. MASON,

Chief of Bureau of Ordnance.

Smokeless powder purchased from the various companies from the time of the adoption of this powder to January, 1907.

Calendar year.	E. I. Du Pont Co.	Lafin & Rand Powder Co.	California Powder Co.	International Smokeless Powder and Chemical Co.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
1897	200,000		100,000	
1898	666,500	100,000	1,777,000	
1899	250,000	100,000		
1900	281,000	114,000	350,000	
1901	621,000	160,000	520,000	100,000
1902		201,000	600,000	550,000
1903		100,000	850,000	1,318,000
1904	1,450,000	800,900	750,000	1,641,810
1905	1,292,000	1,000,000	1,100,000	1,100,000
1906	700,000	550,000	100,000	675,000
Total	5,410,500	3,125,900	6,147,000	5,384,810

NOTE.—These figures are taken from requisitions and represent powder ordered in the respective years.

The price paid for the first 200,000 pounds of smokeless powder, purchased in June, 1897, was \$1 per pound, alcohol furnished by the Government.

In October, 1897, at the instance of the Bureau, this price was reduced to 80 cents per pound, which price continued until the beginning of the year 1901, when it was again reduced to 70 cents per pound plus the cost of the alcohol. This reduction was insisted on by the Bureau, in view of estimates as to the cost of manufacture obtained at the Government powder factory at Indian Head, and was stated by the manufacturers to be excessive.

This price of 70 cents per pound, alcohol furnished by the Government (which meant an actual cost of between 74 and 75 cents per pound), held until a joint army and navy board on smokeless powder, convened by the Secretaries of War and of the Navy, under date of September 26, 1906, recommended a price of 69 cents per pound, manufacturers to furnish their own alcohol, a reduction of about 5 cents in actual cost. For all powder purchased by the Army or Navy in excess of 4,000,000 pounds per year a price of 65 cents per pound was recommended. A copy of the report of this board is appended, marked "A."

The price recommended by this board has been enforced in the case of all contracts subsequent to the date of their report, and is consid-

ered by the Bureau to be a fair one. In approving the price of powder as recommended by the board, the Bureau has been guided by the consideration of the following facts:

(a) The price of smokeless powder for sporting purposes, furnished in bulk, of a grade decidedly inferior to that manufactured for the Government, is from 85 cents to \$1.25 per pound.

(b) The manufacturers are liable to a considerable loss, due to rejection of their powder by the Bureau under its rigid specifications, such rejections during the past year amounted to 275,000 pounds, which is practically a dead loss to the companies.

(c) The manufacture of smokeless powder is particularly dangerous on account of the materials handled, in consideration of which the profit now allowed the contractors does not seem excessive.

Smokeless powder has been manufactured at the Government factory at Indian Head as follows:

Year ending June 30—	Pounds.
1901	225, 903
1902	484, 435
1902	484, 435
1903	738, 469
1904	658, 003
1905	751, 929
1906	1, 001, 699

The estimated cost of the powder manufactured at this factory is, as stated in the appended report of the joint army and navy board, 54.6 cents per pound. This estimate does not include interest on capital invested, certain administrative expenses, or any profit.

Smokeless powder has been manufactured at the Naval torpedo station, Newport, R. I., at the rate of about 45,000 pounds per year, at an estimated cost of 78 cents per pound.

The manufacture of powder at this factory has recently been discontinued.

At present the Bureau is purchasing about 2,000,000 pounds of smokeless powder per year at a price of 69 cents per pound and is manufacturing about 1,000,000 pounds at a cost of 54.6 cents per pound. At these rates the manufacturers are running at something less than one-third their capacity, while the Government factory is running night and day at full capacity.

The orders to the companies are distributed in such manner as will best enable the various plants to maintain their organization, it being recognized that it is to the interest of the Government to have a maximum capacity of plants for the manufacture of smokeless powder at its disposal in the event of war.

This is particularly necessary in view of the small amount of reserve ammunition on hand.

A.

JOINT ARMY AND NAVY BOARD ON SMOKELESS POWDER,
BUREAU OF ORDNANCE, NAVY DEPARTMENT,
Washington, D. C., September 26, 1906.

SIR: Following an earlier report, dated August 1, 1906, forwarding revised specifications for the manufacture of smokeless powder, the

joint army and navy board on smokeless powder submits the following report dealing with the price which should be paid private manufacturers for smokeless powder for cannon to be made for the Government in accordance with the specifications above referred to. In arriving at the price hereinafter recommended the board carefully considered all data which it could obtain, including the actual cost of manufacturing powder at the naval powder factory at Indian Head, Md., and statements and information presented by the powder makers, who were afforded an opportunity to appear before it to discuss the subject involved, to present their views as to the cost of manufacture, and to answer the questions of the board.

2. The price charged for smokeless powder for some years past has been 70 cents per pound, exclusive of the cost of the alcohol used, which heretofore has been supplied by the Government. The actual price paid, including the cost of the alcohol, has thus been approximately 74 cents per pound. Taking the figures furnished by the naval powder factory for the cost of raw material and labor and accepting its estimate as to maintenance, depreciation, and fire loss, the cost of a pound of powder, based upon an output of 1,000,000 pounds, which is approximately the yearly output of that factory working night and day, is 54.6 cents. By adding the interest on capital invested in grounds, buildings, and machinery, the interest on capital invested at any time in material on hand, powder in process of manufacture, and powder in dry houses, taxes, administrative expenses not considered in the data furnished from the naval powder factory, profit, etc., the price per pound is increased from 54.6 cents to approximately 69 cents. In the judgment of the board it is probable that the experience of the private manufacturers enables them to cheapen the cost of production at certain points and that the actual cost of their powder is somewhat less than that of the naval powder factory. Such advantage as they may gain here, however, is probably offset by expenses to which they are subject for pensions in the case of employees killed or injured in their works, by damages exacted by neighboring property owners, and by other expenses necessarily incident to the manufacture of powder.

From an economical standpoint a Government powder factory has advantages, some of which are the following: Smaller salaries for administrative officers, plant probably worked to full capacity while those of existing private manufacturers have been generally worked much below their maximum capacity as a result of limited orders. These advantages are, however, offset in a measure by a labor day of eight hours while the labor day of private manufacturers is ten hours, and by the expense incident to a large number of holidays during the year for which the Government employees are given full pay.

It is considered probable also that private manufacturers have an advantage over the Government in the purchase of raw materials: but this subject is a difficult one to investigate and the board has no accurate information concerning it.

Based upon all data at its disposal, the board is of the opinion that a price of 69 cents per pound is a fair one to be paid private manufacturers for smokeless powder, the manufacturers to furnish their own alcohol. The board considers that the arrangement under which the Government has heretofore supplied the alcohol to the manu-

facturers has many disadvantages, and recommends that in future it be abandoned and that manufacturers be required to supply their own alcohol, which may be removed from bond free of duty under proper regulations of the Treasury Department.

3. In view of the more economical operation of the plants engaged in the production of smokeless powders for cannon, when operated at approximately their full capacity, it is the opinion of the board that the above price of 69 cents per pound should be considered as applying only to the existing plants when the orders received from the Government are not in the aggregate sufficient to enable them to be operated to their full capacity. The board therefore recommends that when the aggregate of the orders of the Government to the four following powder plants, the only ones now equipped to manufacture smokeless powder for the Government, viz, the E. I. Du Pont Company, the International Smokeless Powder and Chemical Company, the Laflin & Rand Powder Company, and the California Powder Works exceeds 4,000,000 pounds, all powders ordered or contracted for in any given year in excess of 4,000,000 pounds be paid for at price of 65 cents per pound, the manufacturers to furnish the alcohol.

4. A duplicate of this report has been forwarded to the Chief of Ordnance, United States Army.

AUSTIN M. KNIGHT,
Commander, U. S. Navy,
President of Board.

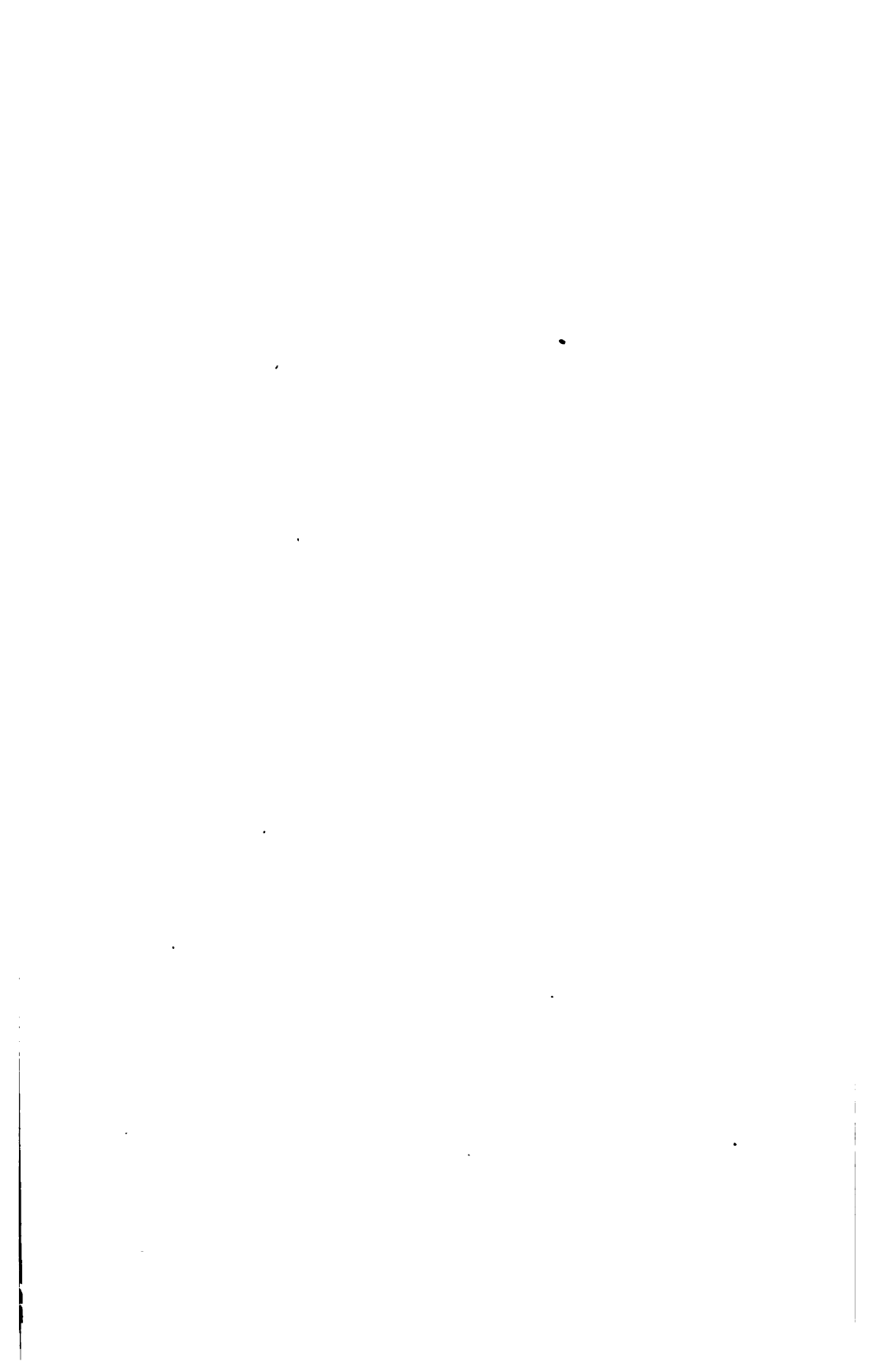
A. C. DIEFFENBACH,
Commander, U. S. Navy (Retired).

B. W. DUNN,
Major, Ordnance Department, U. S. Army.

C. B. WHEELER,
Major, Ordnance Department, U. S. Army.

JOHN HALLIGAN, JR.,
Lieutenant, U. S. Navy.

THE CHIEF OF BUREAU OF ORDNANCE, NAVY DEPARTMENT,
Washington, D. C.



[No. 48.]

RELIEF OF ROBERT LENNAN.

NAVY DEPARTMENT,
Washington, January 23, 1907.

SIR: I have the honor to acknowledge the receipt of your letter of the 15th ultimo, inclosing, with request for the views and recommendations of the Department thereon, a bill (H. R. 21985) for the relief of Robert Lennan. This measure provides:

That the proper accounting officer of the Navy Department be directed to muster and pay to Robert Lennan, late surgeons' steward and acting assistant surgeon, the difference in the pay of surgeons' steward and acting assistant surgeon of the Navy for the time he acted as assistant surgeon on the United States steamer *Pulaski* in the Paraguay expedition between the years eighteen hundred and fifty-eight and eighteen hundred and sixty-one.

Sec. 2. That the pay and allowances actually received by him shall be deducted from all sums paid.

There is inclosed herewith a transcript from the records showing the service of Robert Lennan as ordinary seaman and surgeons' steward from June 5, 1858, to December 16, 1861; of Robert Lennon as surgeon's steward from September 8, 1862, to January 14, 1864; of Robert Lannan or Lannon as master at arms from July 1, 1865, until desertion August 29, 1865, and of Robert Lannan as yeoman from February 27, 1866, to June 29, 1868. The Department can not state, however, that the service under these several enlistments was rendered by the same man.

The Bureau of Navigation, by which the transcript mentioned was furnished, further reports:

There is no log book of the U. S. S. *Pulaski* in the Bureau for 1860, but examination of the log books of the *Metacomet* and *Pulaski* for the rest of the period from December 21, 1858, to December 16, 1861, and the "lists of officers attached to ships" discloses no reference to Mr. Lennan as acting as assistant surgeon. The "lists of officers attached to ships" for the U. S. S. *Pulaski* on July 1, 1860, January 1, 1861, and October 1, 1861, show Robert Lennan, surgeon's steward, United States Navy. The log book of the U. S. S. *Metacomet*, under date of September 10, 1859, shows that Passed Assistant Surgeon Greenhow, of the U. S. S. *Perry*, arrived from Buenos Ayres for the purpose of visiting the sick of the *Metacomet*; that he came by orders of Captain Tilghman, to whom application had been made by Captain Macomb (commanding officer of the *Metacomet*) for medical attendance. Under date of October 11, 1859, the log book shows that Passed Assistant Surgeon Greenhow arrived from Buenos Ayres for the purpose of rendering medical aid to the sick of the *Metacomet*.

No medical officer was attached to the U. S. S. *Pulaski* or *Metacomet* during the period of Mr. Lennan's service on board that vessel as surgeon's steward.

The records of the office of the Auditor for the Navy Department may possibly afford further information in the matter. This Department is not able, however, upon the information at hand, to recommend the passage of the measure.

With respect to matters of form it is suggested, should favorable action be taken on the bill, that the directions contained therein be addressed to the Secretary of the Treasury; that the words "muster and," in line 4, be omitted, and that the bill be so worded as make an appropriation, attention being invited in this connection to section 9 of the legislative, executive, and judicial appropriation act approved June 30, 1906 (34 Stat. L., 764), which provides that—

No act of Congress hereafter passed shall be construed to make an appropriation out of the Treasury of the United States * * * unless such act shall in specific terms declare an appropriation to be made * * *.

Section 2 of the bill is not understood, as section 1 contemplates the payment of the difference only between two rates of pay for a certain period and not the total pay of the higher position for such time.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEO. EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

Record of the service of Robert Lennan, late surgeon's steward, United States Navy.

June 5, 1858: Enlisted that date at the navy-yard, Pensacola, Fla., as an ordinary seaman, and served as such at that station until October 22, 1858, subsequent to which date he served as a surgeon's steward until December 21, 1858, subsequent to which date he served in the U. S. S. *Metacomet* or *Pulaski* as an ordinary seaman until December 22, 1858 (one day), and as a surgeon's steward until December 16, 1861, when discharged. (There is no personal description of Mr. Lennan on file in the Bureau under this enlistment.)

September 8, 1862: Robert Lennon was appointed a surgeon's steward in the Navy this date and served in the *Potomaska* and the *Vermont*, being discharged from the last-named vessel on January 14, 1864. The roll of the *Potomaska* for the fourth quarter, 1862, gives this man's birthplace as Waterford, Ireland; age, 28 years; occupation, apothecary; gray eyes; auburn hair; florid complexion; height, 5 feet and 5½ inches.

July 1, 1865: Robert Lannan or Lannon was appointed a master at arms on board the *Florida* this date, and served in that vessel until August 29, 1865, when he deserted. (No personal description of this man is found in the Bureau.)

February 27, 1868: Robert Lannan was appointed a yeoman in the Navy this date for the cruise of the U. S. S. *Supply*, and served as such in that vessel until discharged on June 29, 1868. (No description of this man is on file in the Bureau.)

G. A. CONVERSE, *Chief of Bureau.*

WASHINGTON, D. C., January 19, 1907.



[No. 49.]

EXPENSES, CONTINGENT, NAVY—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, January 25, 1907.

SIR: In compliance with your request (by telephone) of this date, I have the honor to inclose herewith statements showing the expenditures from the appropriation "Contingent, Navy, 1906," and obligations incurred under the appropriation "Contingent, Navy, 1907," to January 24, 1907.

Very respectfully,

V. H. METCALF, *Secretary.*

Hon. GEO. EDMUND FOSS,

*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT.
Washington, January 25, 1907.

Expenditures from appropriation "Contingent, Navy, 1906."

Salaries of clerks and others at—	
Naval station, Cavite, P. I.....	\$2,800.00
Naval station, Guam.....	7,211.52
Naval station, Tutulla.....	3,500.00
	<hr/>
	\$13,511.52
Salaries of clerks and others returning from abroad and while on leave.....	4,402.50
Salaries and expenses of secret-service operatives.....	1,402.50
Traveling expenses of Secretary and Assistant Secretary.....	153.96
Tents, cots, stoves, etc., at Newport, R. I., and navy-yard, Norfolk, Va., during epidemics.....	7,235.91
Fitting up rooms for use of Russo-Japanese peace conference at navy-yard, Portsmouth, N. H.....	3,850.00
Placing tablet on building in which peace conference was held at navy-yard, Portsmouth, N. H.....	250.00
Placing buoys in Samana Bay.....	805.95
Expenses in connection with landing of marine battalion from U. S. S. <i>Baltimore</i> , in China, in December, 1905.....	350.00
Repairing damage by typhoon at naval station, Olongapo.....	3,500.00
Surveying land at naval magazine, Dover, N. J.....	100.00
Professional services (surgical) rendered to Midshipman J. R. Branch.....	2,250.00
Hire of carriage for senior officer at Manila, P. I.....	900.00
Hire of carriages and other expenses in making official visits abroad.....	500.00
Official entertaining:	
By special squadron sent to France to bring home remains of John Paul Jones.....	500.00
In connection with the entertainment of Prince Louis, of Battemberg, and the officers of the British fleet.....	2,200.00
By the Second Squadron, Atlantic fleet, during cruise abroad.....	719.07
Ceremonies in connection with the interment of John Paul Jones and entertainment of officers of French fleet and others.....	6,053.75
	<hr/>
Total.....	49,363.16

NAVY DEPARTMENT,
Washington, January 25, 1907.

Obligations incurred under appropriation "Contingent Navy, 1907," to January 25, 1907.

Salaries of clerks and others at—	
Naval station, Cavite, P. I.-----	\$3,900.00
Naval station, Guam-----	7,211.52
Naval station, Tutuila, Samoa-----	3,500.00
	<hr/>
	\$14,611.52
Salaries of clerks and others returning from abroad and while on leave-----	1,879.26
Salaries and expenses of Secret Service operatives-----	947.04
Traveling expenses of Assistant Secretary-----	52.64
Hire of tug at navy-yard, Puget Sound, Wash-----	200.00
Expenses on account of hurricane at Pensacola, Fla-----	430.07
Entertainment of foreign naval attachés and members of committees of Congress at naval review, Long Island, September 3, 1906-----	150.00
Entertaining officers and men of German ship <i>Stein</i> during visit to Habana, Cuba, in January, 1907-----	150.00
Subscription to newspapers and periodicals for enlisted men on U. S. S. <i>Nipsic</i> at navy-yard, Puget Sound, Wash-----	50.00
Purchase of lumber to wall up sides of tents at apprentice seamen camp, navy-yard, Norfolk, Va-----	264.00
Carriage hire for use of commander in chief of Asiatic fleet at Manila, P. I.-----	900.00
Carriage hire for official visits abroad (estimated)-----	500.00
	<hr/>
Total-----	20,134.53

[No. 50.]

RELIEF OF JOHN T. SMITH (H. R. 22168)—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, January 29, 1907.

SIR: Referring to your letter of the 7th instant, transmitting a copy of the bill (H. R. 22168) "advancing the grade of John T. Smith, passed assistant engineer, United States Navy," and requesting expression of the views of this Department thereon, I have the honor to state that your letter, with its inclosures and other papers relating to the matter, having been referred to the Chief of the Bureau of Navigation for report, have been returned by that officer with the following statement:

Passed Assistant Engineer Smith was transferred to the retired list by special act of Congress as a passed assistant engineer, from the grade of second assistant engineer, on account of physical disability, which was caused by his services on board the U. S. S. *Manhattan* in 1873, the circumstances of which are set forth in the inclosed papers.

In view of the service of Mr. Smith during the civil war and his arduous service on board the U. S. S. *Manhattan*, which resulted in the impairment of his health, for which reason he could not be promoted on the active list, the Bureau recommends the Department's favorable consideration of the proposed legislation.

Mr. Smith was excluded from the benefits conferred by a clause of the naval act of June 29, 1906, relating to the advancement of retired officers, by the fact that he "received an advance of grade at the date of his retirement * * * by virtue of the provisions of a special act of Congress" (act of Jan. 30, 1875, 18 Stat. L., p. 305).

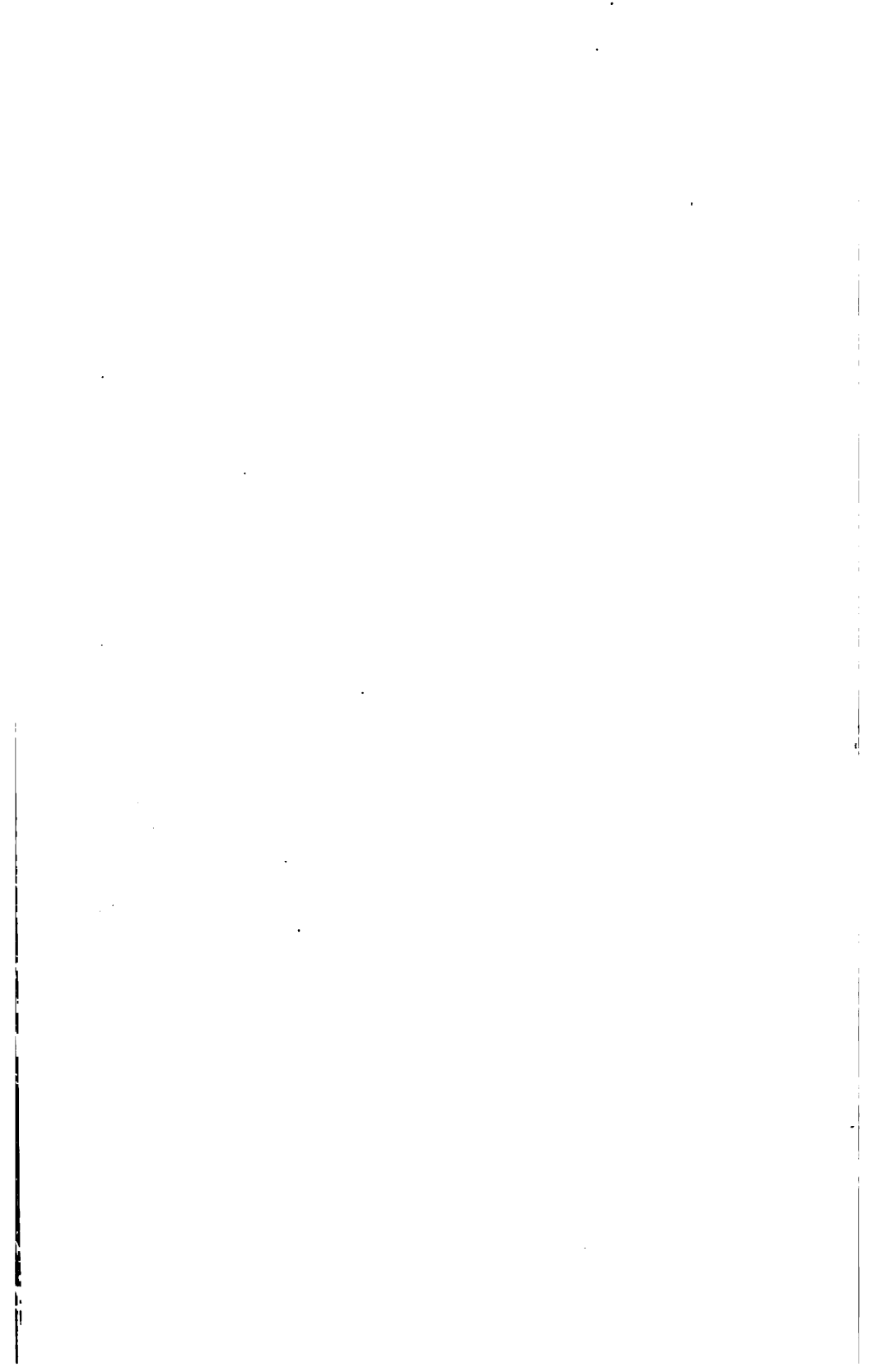
While believing that the question whether the clause of the act of June 29, 1906, above mentioned, should be extended by special acts applicable to individual cases is one that should appropriately be left to the determination of the Congress, if it be determined that such extension should be made this Department recommends that the act under consideration, for the relief of Mr. Smith, be favorably considered.

Very respectfully,

V. H. METCALF, *Secretary.*
S. W. B. D.

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.

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[No. 51.]

**RESERVE AMMUNITION—APPROPRIATION BILL, CHANGE OF
LANGUAGE IN—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, January 30, 1907.

SIR: I have the honor to inclose herewith copy of a letter of the 29th instant, addressed to the Department by the chief of the Bureau of Ordnance, in which he recommends that the words "a reserve supply of powder and shell" in the naval appropriation bill, as reported by the House Naval Committee, H. R. 24925 (Report No. 6713), on page 15, line 5, under "Reserve ammunition," be changed to "a reserve supply of ammunition" to accord with the title of this appropriation.

The title heretofore "Reserve powder and shell" was changed to "Reserve ammunition" at the request of the Department, because the components of ammunition, other than powder and shell, particularly cartridge cases and powder tanks, are just as necessary as the powder and shell heretofore appropriated for.

In asking the change of title of this appropriation the Bureau inadvertently omitted to request the corresponding change in the text under this title, which the Department now earnestly urges, in order that the spirit of the title may be carried out.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT,
BUREAU OF ORDNANCE,
January 29, 1907.

SIR: In the naval appropriation bill, as reported by the House Naval Committee, H. R. 24925 (Report No. 6713), on page 15, line 5, under "Reserve ammunition," it is recommended that the words "a reserve supply of powder and shell" be changed to "a reserve supply of ammunition" to accord with the title of this appropriation.

2. At the request of the Department the title heretofore "Reserve powder and shell" was changed to "Reserve ammunition," because the components of ammunition, other than powder and shell, particularly cartridge cases and powder tanks, are just as necessary as the powder and shell heretofore appropriated for. There is now no appropriation under which a reserve of cartridge cases and powder

tanks can be accumulated. As a result there is now no reserve of these necessary articles, except for the older calibers.

3. In requesting the change of title of this appropriation, the Bureau inadvertently omitted to request the corresponding change in the text under this title, which is now urged in order that the spirit of the title may be carried out.

Respectfully,

N. E. MASON,

Chief of the Bureau of Ordnance.

The SECRETARY OF THE NAVY.

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[No. 52.]

**CIVIL ESTABLISHMENT, BUREAU OF SUPPLIES AND ACCOUNTS,
APPROPRIATION BILL—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, January 30, 1907.

SIR: In the estimates for appropriations required for the naval service for the fiscal year ending June 30, 1908, under the heading "Civil establishment, Bureau of Supplies and Accounts, navy-yard, New York, N. Y.," an estimate is made for one fireman, at \$2 per diem.

The pay of laborers and mechanics at navy-yards is fixed to conform, as nearly as is consistent with the public interests, with the rates paid by private establishments in the immediate vicinity of the respective yards. The pay of first-class firemen, with the exception of the one above mentioned under civil establishment, has been fixed at \$2.48 per diem.

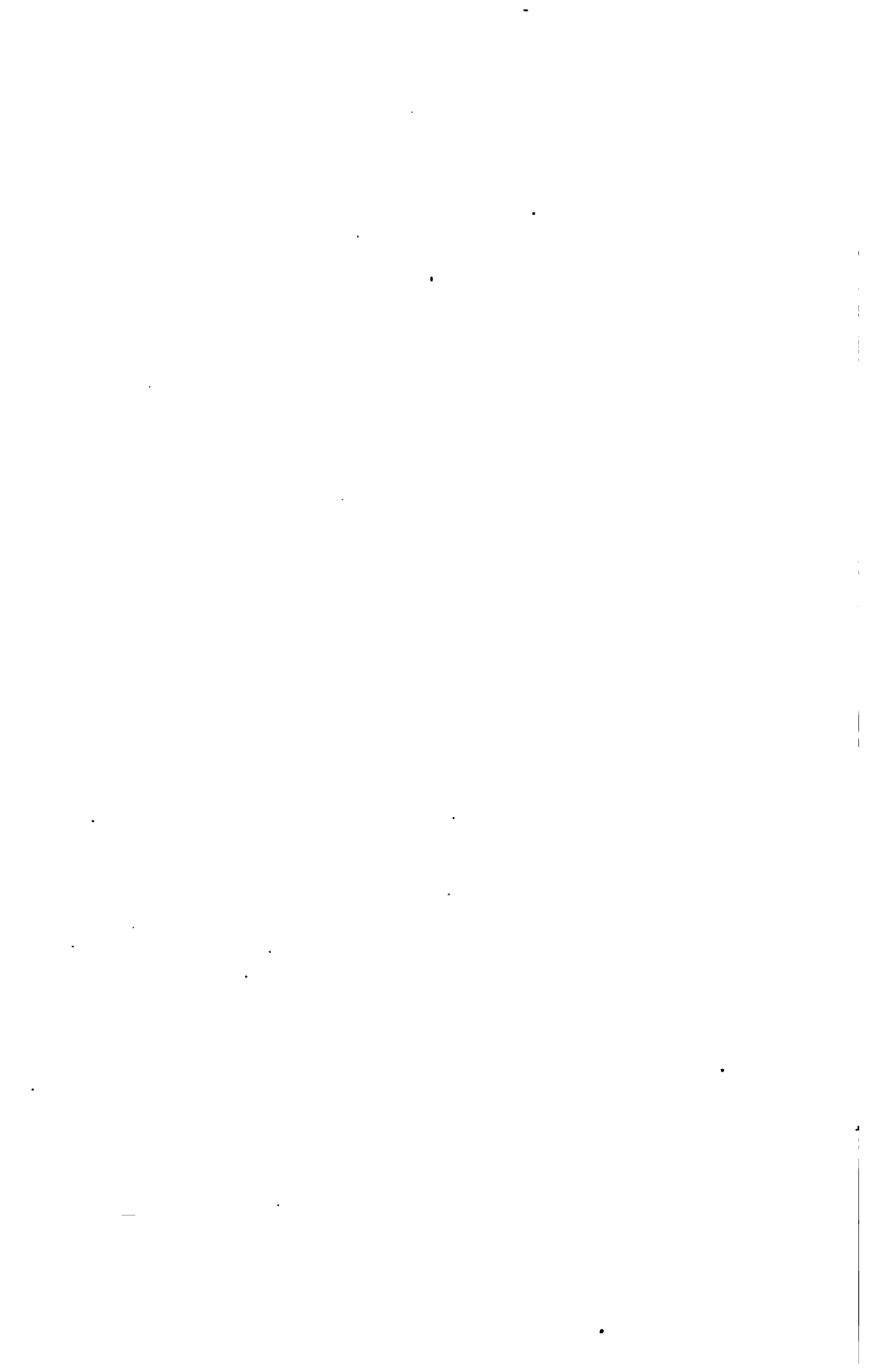
The Department, therefore, respectfully requests that the pay for the fireman under "Civil establishment, Bureau of Supplies and Accounts, navy-yard, New York, N. Y.," be increased from \$2 to \$2.48 per diem.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

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[No. 53.]

**ARMOR AND ARMAMENT, APPROPRIATION BILL—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, January 30, 1907.

SIR: I have the honor to inclose herewith copy of a letter of the 29th instant, addressed to the Department by the Chief of the Bureau of Ordnance, in which he refers to H. R. bill No. 24925 (Report No. 6713), making appropriations for the naval service for the fiscal year ending June 30, 1908, and for other purposes; invites attention to page 81, lines 3 to 17; and states that, inasmuch as the bill as reported authorizes the construction of an additional first-class battle ship and two torpedo boat destroyers, it will be necessary to increase the amount appropriated in the naval bill, page 83, lines 15 to 17, under the heading "Armor and Armament," from \$9,000,000 to \$12,000,000, the \$3,000,000 additional being for commencing work on the extra battle ship and the two new destroyers.

In view of the facts as set forth in the letter of the Chief of the Bureau of Ordnance it is urgently requested that the committee give this matter favorable consideration.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT, BUREAU OF ORDNANCE,
January 29, 1907.

SIR: Referring to H. R. bill 24925 (Report No. 6713), making appropriations for the naval service for the fiscal year ending June 30, 1908, and for other purposes—

1. The Bureau invites attention to page 81, lines 3 to 17. Inasmuch as the bill as reported authorizes the construction of an additional first-class battle ship, similar in all essential characteristics and additional to the battle ship authorized by the act making appropriations for the naval service for the fiscal year ending June 30, 1907, and two torpedo-boat destroyers, this increase will make it necessary to increase the amount appropriated in the naval bill, page 83, lines 15 to 17, under the heading "Armor and armament," from \$9,000,000 to \$12,000,000, the \$3,000,000 additional being for commencing work on the extra battle ship and the two new destroyers.

2. It is urgently recommended that this matter be brought to the attention of Congress, as the amount is absolutely necessary for the purpose mentioned.

Respectfully,

N. E. MASON,

Chief of the Bureau of Ordnance.

The SECRETARY OF THE NAVY.

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[No. 54.]

**RELIEF OF KENNETH M'ALPINE—DEPARTMENT LETTER
(H. R. 24420).**

NAVY DEPARTMENT,
Washington, January 29, 1907.

SIR: I have the honor to acknowledge the receipt of your letter of the 19th instant, requesting the views and recommendations of the Department on a bill (H. R. 24420) for the relief of Lieut. Commander Kenneth McAlpine, U. S. Navy.

The bill was referred to the engineer in chief, who was a member of the board by which Mr. McAlpine was found morally disqualified for promotion upon examination in 1903, and to the Bureau of Navigation, which has cognizance of matters pertaining to the personnel of the service. They report thereon as follows:

THE ENGINEER IN CHIEF:

Lieut. Kenneth McAlpine was wholly retired from the Navy of the United States on July 17, 1903, as a result of his examination for promotion to the grade of lieutenant-commander. On March 3, 1905, by special act of Congress, he was restored to the service, and, after passing the required examination, was immediately promoted to the grade of lieutenant-commander. The reasons for his restoration are fully set forth in the correspondence, the papers of which are on file in the Department.

In the opinion of the engineer in chief, the arguments therein used show that the action of restoration was done to right a wrong. A wrong having admittedly been done this officer, full reparation can only be made by replacing him in his original position, as provided for in the attached bill. The loss of pay during the time out of the service still stands against this officer, but such a loss is not cumulative, as is the loss of numbers in grade, which might jeopardize his whole future career.

It is also noted that this officer is now an additional number in grade; his advancement therefore will not injure in any respect the officers over whose head he jumps. It is therefore respectfully recommended that the Department favorably indorse this bill.

THE BUREAU OF NAVIGATION:

Lieut. Commander (then Lieutenant) Kenneth McAlpine, U. S. Navy, was not wholly retired from the Navy as stated in the [first] paragraph of the second indorsement [by the engineer in chief] hereon, but was discharged from the naval service from July 17, 1903, in accordance with the provisions of an act of Congress approved August 5, 1882, as the result of his examination for promotion to the grade of lieutenant-commander. The naval examining board in his case reported that he had the mental and professional, but not the moral, qualifications by reason of the excessive use of intoxicants which was the result of his own misconduct and did not recommend him for promotion. One member of the examining board dissented from the findings of the board, stating that he differed from the majority of the board as to the mental and professional qualifications of Mr. McAlpine, and that he decided he (Mr. McAlpine) did not have the mental, moral, or professional qualifications by reason of the intemperate use of alcoholic stimulants, which was the result of his own misconduct.

By an act of Congress, approved March 3, 1905, Lieutenant-Commander McAlpine was restored to the Navy at the head of the list of lieutenants.

The Bureau is not aware that it has been admitted that a wrong was done Lieutenant-Commander McAlpine in discharging him from the naval service. On the other hand, it would appear from an examination of the record of that officer that the examining board was fully justified in its findings.

The Bureau does not agree with the [third] paragraph of the second indorsement, in which it is stated that to restore Lieutenant-Commander McAlpine to his original position on the list "will not injure in any respect the officers over whose heads he jumps." Such advancement would not interfere with the promotion of the officers jumped, but it would in every other respect place them at a disadvantage with Lieutenant-Commander McAlpine.

Mr. McAlpine, in being below his original position on the navy list, is suffering punishment for his former intemperate use of alcoholic stimulants, and the Bureau does not believe that this punishment should be wholly removed by giving him his original position on the navy list, and does not recommend the Department's favorable consideration of the proposed legislation.

Attention is invited to the wording of the first section of the proposed legislation. It does not appear that this section authorizes the President to appoint Lieutenant-Commander McAlpine to his original position. His original position on the navy list is next after Lieut. Commander Gustav Kaemmerling, U. S. Navy.

It is suggested that the second paragraph of the inclosed bill be stricken out, as there is no reason why Mr. McAlpine should be given credit for the time he was not in the naval service.

The record of proceedings of the examining board and the correspondence in the case, above referred to, will be submitted to the committee for its inspection if desired.

With reference to section 1 of the bill, attention is invited to the fact that officers in the commissioned grades of the Navy are appointed by the President, after confirmation by the Senate. It is therefore suggested that if the measure be favorably considered this section be so changed as to authorize the President to nominate and, by and with the advice and consent of the Senate, appoint Mr. McAlpine a lieutenant-commander in the Navy to take rank next after Lieut. Commander Gustav Kaemmerling.

With respect to the merits of the bill, the Department concurs generally in the views of the Bureau of Navigation. In this connection attention is invited to a report (copy herewith) made to the committee under date of June 22, 1906, relative to a somewhat similar bill, in which the Department expressed the opinion that, in being restored to the service, Mr. McAlpine has already been shown the fullest measure of consideration that the most favorable view of his case could warrant.

Very respectfully,

V. H. METCALF, *Secretary.*
S. W. B. D.

HON. GEORGE EDMUND FOSS,

*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT,
Washington, June 22, 1906.

SIR: I have the honor to acknowledge the receipt of your letter of the 19th instant, requesting the views of the Department on House bill 20225, for the relief of Lieut. Commander Kenneth McAlpine, U. S. Navy. The bill provides that this officer "be given the

same number and rank in the United States Navy that he would have been entitled to had he not been dismissed from the service."

Mr. McAlpine was discharged from the Navy July 17, 1903, pursuant to the act of August 5, 1882 (22 Stat. L., 286), having been found, upon examination for promotion from the grade of lieutenant to that of lieutenant-commander, to be morally disqualified therefor on account of the excessive use of intoxicants. He was restored to the service, at the head of the list of lieutenants, by virtue of an act of Congress approved March 3, 1905 (33 Stat. L., 992).

The Department is of opinion, upon examination of the record of this officer, that in restoring him to the service at the head of the lieutenants' list he has shown the fullest consideration that the most favorable view of his case could warrant, and it does not recommend further legislation for his relief.

It may be added that the bill appears to be objectionable in point of form, in that it directs the appointment of a person by name to a particular office in the Navy.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.
S. W. B. D.

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.

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[No. 55.]

RELIEF OF M. H. PLUNKETT (H. R. 22323).

NAVY DEPARTMENT,
Washington, January 29, 1907.

SIR: In compliance with request contained in your letter of the 19th instant, I have the honor to submit herewith the following statement respecting the bill (H. R. 22323) placing M. H. Plunkett, assistant engineer, United States Navy, on the retired list with an advanced rank:

On June 4, 1864, Second Assistant Engineer Plunkett was ordered to examination for promotion and the examining board in his case reported that he was affected with heart trouble, general debility, and a tendency to tubercular disease of the lungs, which unfitted him for sea duty. The board also reported that, in its opinion, his physical condition originated in the line of duty. His orders to sea duty were revoked on account of the findings of this examining board. On May 9, 1865, his resignation as a second assistant engineer in the Navy was accepted. He states that his resignation was caused on account of ill health, which barred him from promotion in the Navy; that he requested to be appointed an assistant engineer on the retired list, which was done on June 22, 1874, in accordance with an act of Congress approved June 22, 1874, on account of continued ill health, which was caused by his service in the Navy and which rendered him unfit to follow a civil career. He was placed on the retired list with the same rank he held while in active service.

Mr. Plunkett was excluded from the benefits conferred by a clause of the naval act of June 29, 1906, relating to the advancement of retired officers, by the fact that he was, on June 22, 1874, "restored to the Navy and placed on the retired list by virtue of the provisions of a special act of Congress."

While believing that the question whether the clause of the act of June 29, 1906, above mentioned, should be extended by special acts applicable to individual cases is one that should appropriately be left to the determination of the Congress, if it be determined that such extension should be so made, this Department recommends that the act under consideration, for the relief of Mr. Plunkett, be favorably considered.

Very respectfully,

V. H. METCALF, *Secretary.*
S. W. B. D.

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.

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[No. 56.]

**RETIREMENT FOR PHYSICAL DISABILITY—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, January 30, 1907.

SIR: The Department is in receipt of a letter from the Bureau of Navigation as follows:

The Bureau has the honor to recommend that the Department request the proper committee of Congress to have the following provision inserted in the naval appropriation bill now before Congress:

"That should any officer fail in his physical examination for promotion and be found incapacitated for service by reason of physical disability contracted in line of duty he shall be retired with the rank to which his seniority entitled him to be promoted."

This provision is now in force for officers of the Army and Marine Corps, and it appears to the Bureau that naval officers should receive this consideration.

After an officer serves through an entire grade satisfactorily and is found physically disqualified for promotion, it is only just that he should receive the advancement to which he was entitled and which he has earned by reason of length of service.

The corresponding provision of law for the Army is contained in the act of October 1, 1890 (26 Stat., 562). Its benefits are extended to the Marine Corps by the act of July 28, 1892 (27 Stat., 321).

The Department concurs in the views of the Bureau as above set forth, and commends the proposed legislation to the favorable consideration of the committee, with the suggestion that, should the same be approved, it be inserted as a paragraph in page 4 of the bill, under the heading "Pay of the Navy." For the convenience of the committee, a draft of the clause, on a separate sheet, is inclosed.

I have the honor to be,

Very respectfully, yours,

V. H. METCALF, *Secretary.*
S. W. B. D.

HON. GEO. EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.

That should any officer fail in his physical examination for promotion and be found incapacitated for service by reason of physical disability contracted in line of duty he shall be retired with the rank to which his seniority entitled him to be promoted.

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[No. 57.]

OPEN PURCHASES IN ARMY AND NAVY—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, January 29, 1907.

DEAR SIR: I inclose herewith a memorandum prepared by the Paymaster-General of the Navy, explanatory of the difference in wording between the army act of June 12, 1906, covering small open purchases, and the desired legislation on a similar line for the Navy, which I understand you desire to have.

Very truly, yours,

V. H. METCALF, *Secretary.*

Hon. GEORGE EDMUND FOSS,
House of Representatives.

NAVY DEPARTMENT,
BUREAU OF SUPPLIES AND ACCOUNTS,
Washington, D. C.

MEMORANDUM.

Army act, June 12, 1906.

Lines 6 to 13, inc., page 52, H. R. 24925.

"Hereafter the purchase of supplies and the procurement of services for all branches of the army service may be made in open market in the manner common among business men when the aggregate of the amount required does not exceed five hundred dollars; but every such purchase exceeding one hundred dollars shall be promptly reported to the Secretary of War for approval, under such requirements as he may prescribe."

"That hereafter the purchase of supplies and the procurement of services for all branches of the naval service may be made in open market in the manner common among business men, without formal contract or bond, when the aggregate of the amount required does not exceed five hundred dollars, and when, in the opinion of the proper administrative officers, equally or more advantageous terms can thereby be secured."

"WITHOUT FORMAL CONTRACT OR BOND."

This clause is inserted in the proposed act (although it is not contained in the army act quoted above), because it was thought that the "manner common among business men" should be more definitely described. While the army practice is to make small purchases without requiring a formal contract or bond (since that is the common business practice), it was deemed better to explicitly mention the fact in preparing legislation for the Navy that such contracts or bonds would not be required where the amounts concerned are so small as to render it inexpedient from the standpoint of efficiency and economy

to require such contracts or bonds, for it is more economical to buy on competitive bids and by a written order than by the more formal contract and bond. The Bureau of Supplies and Accounts has received many complaints to the effect that the profits in small orders were less than the expenses incurred through the preparation of contracts and bonds.

"PURCHASES REPORTED TO THE SECRETARY OF WAR FOR APPROVAL."

Every purchase made under the Navy Department (except in cases of emergency or aboard vessels away from the United States) is first passed upon by the Navy Department before authorization. Consequently, the clause specifying the reporting of any particular expenditure for approval is unnecessary. The business of the Navy Department is much more centralized than that of the War Department, and independent action of purchasing officers is not possible.

While the army act provides that all purchases under \$500 shall be bought in the open market, it is desired that such purchases shall only be made for the Navy when "in the opinion of the proper administrative officers equally or more advantageous terms can thereby be secured." In other words, each case will be acted upon by the administrative officers as it comes up and a decision made as to whether it will be more advantageous to purchase in the open market, as prescribed in the proposed act, or to enter upon formal newspaper advertising and subsequent contract, as now required by law.

January 28, 1907.

E. B. ROGERS,
Paymaster-General, U. S. Navy.



[No. 58.]

PUBLIC WORKS, BUREAU OF MEDICINE AND SURGERY, APPROPRIATION BILL—DEPARTMENT LETTER.

DEPARTMENT OF THE NAVY,
BUREAU OF MEDICINE AND SURGERY,
Washington, D. C., January 30, 1907.

MY DEAR MR. FOSS: With reference to the estimates for "Public works" under the Bureau of Medicine and Surgery for the fiscal year ending June 30, 1908, total \$430,000. for works considered proper and necessary by the Bureau and approved by the honorable Secretary of the Navy, I regret very much that five of the seven items estimated for have been eliminated in preparing the bill making appropriations for the naval service for the ensuing fiscal year, thereby reducing the total provided for "Public works" under this Bureau from \$430,000 to \$50,000, and have to request that, if possible, two of the items omitted be inserted in the bill as House amendments, if deemed proper by you, i. e., Naval Hospital, Washington, D. C., \$60,000, and naval hospital, Canacao, P. I., \$70,000. as found in extenso in H. R. Document No. 12, Fifty-ninth Congress, second session, page 512.

The new naval hospital at the foot of Twenty-fourth street, this city, provided for by the acts of March 3, 1903, \$125,000, and March 3, 1905, \$20,000, total \$145,000, has been equipped at a further expense of about \$50,000 without special appropriation, making the total value of the hospital as it stands, without cost of land, about \$200,000, with a present capacity of 40 beds. In the erection of a hospital building the administrative features add largely to the cost. The administrative building of this hospital, as it now stands, is equal to the capacity of a hospital for several hundred patients, and the additional appropriation requested will be used entirely for increasing the bed capacity of the hospital and will give us accommodation for more than double the present number of patients without further outlay for administrative features. The renovation of the Norfolk Hospital, authorized by the act of June 29, 1906, will necessitate the transfer of patients to Washington and will increase the demand for greater accommodations here.

The naval hospital at Canacao is the only naval hospital in the Philippine Islands. It is an excellent building, with a fine location, but is inadequate in size, and its enlargement by the construction of additional wards is absolutely necessary. The appropriation of \$50,000 requested is for additional wards and \$20,000 for the erection of quarters for the medical staff outside of the hospital buildings proper, the location of the hospital being so far removed from Manila

and Cavite as to render it necessary that the medical officers attached to the hospital shall live within the compound. At present quarters are provided only for the medical officer in command. The same facts as to administrative features noted in the preceding paragraph will hold equally in relation to the Canacao Hospital, i. e., the present administrative features are ample, and the appropriation requested will be expended in affording additional bed space for patients.

The last report received from the Canacao Hospital, dated December 12, 1906, shows that all beds for both officers and enlisted men are occupied and that cots are being used on the porticos for the excess of patients.

I am personally familiar with the needs of both of the hospitals for which I have requested the additional appropriations, being in daily touch with the hospital at Washington and having made a thorough inspection of conditions at Canacao during the last summer.

You will doubtless recall your visit to the Canacao Hospital and will probably remember that even at that time it was not adequate in size to the demands made upon it. These demands are constantly increasing, and the efficiency of the hospital service should not be permitted to suffer the delay of another year.

The honorable Secretary of the Navy having approved the above-mentioned estimates for items of appropriation, I feel there is no impropriety in making this appeal to you and trust that you will find it practicable to introduce these two items, at least, as amendments when the bill is taken up by the Committee of the Whole House.

Very truly, yours,

P. M. RIXEY,

Surgeon-General, U. S. Navy.

HON. GEORGE EDMUND FOSS, M. C.,

Chairman Committee on Naval Affairs,

House of Representatives.

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[No. 59.]

**WARRANT OFFICERS APPOINTED ENSIGNS OF THE NAVY—
DEPARTMENT LETTER.**

NAVY DEPARTMENT,
BUREAU OF NAVIGATION,
Washington, D. C., January 31, 1907.

SIR: In compliance with your telephonic request of this date I have the pleasure to inclose herewith a list of warrant officers who have been appointed ensigns in the Navy, through competitive examination, in accordance with the provisions of an act of Congress approved March 3, 1901, as amended.

Very respectfully,

W. P. POTTER,
Acting Chief of Bureau.

Hon. GEORGE E. FOSS, M. C.,
*Chairman Committee on Naval Affairs,
House of Representatives, Washington, D. C.*

Warrant officers who have applied for appointment as ensigns in the Navy under the provisions of an act of Congress, approved March 3, 1901, as amended, for the years 1901, 1902, 1903, 1904, 1905, and 1906.

When appointed.	Name of applicant.	Present rank.
July 30, 1901	Henry B. Soule	Lieutenant.
Do.....	Francis Martin	Do.
July 30, 1902	Louis J. Connelly	Do.
July 30, 1903	Myles Joyce	Do.
Do.....	Levin J. Wallace	Lieutenant (junior grade).
July 30, 1904	Francis D. Burns	Ensign.
Do.....	Charles W. Densmore	Do.
Do.....	David Lyons	Do.
Do.....	Owen Hill	Do.
Do.....	Joseph F. Daniels	Do.
Do.....	Clarence S. Vanderbeck	Do.
Do.....	Walter E. Whitehead	Do.
Do.....	Gaston DeP. Johnstone	Do.
Do.....	Frank Rorschach	Do.
Do.....	Edward H. Campbell	Do.
July 30, 1905	Charles H. Bullock	Do.
Do.....	John Grady	Do.
Do.....	Arthur C. Kall	Do.
Do.....	William D. Greetham	Do.
Do.....	Robert W. Kessler	Do.
July 30, 1906	Clarence E. Wood	Do.
Do.....	Max M. Frucht	Do.
Do.....	Charles S. Joyce	Do.

[No. 60.]

**AMMUNITION AND OTHER SUPPLIES (APPROPRIATION BILL)—
DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, January 31, 1907.

SIR: I have the honor to inclose herewith copy of a letter of the 28th instant addressed to the Department by the Chief of the Bureau of Ordnance, in which he refers to H. R. bill 24925 (Report No. 6713), making appropriations for the naval service for the fiscal year ending June 30, 1908, and for other purposes, invites attention to page 13, lines 21 and 22: "Ammunition and other supplies for new ships, \$750,000;" and recommends that the supplementary note in the Bureau's estimates for this sum, as follows, be made a part of the bill when it finally passes, viz:

Incident to the appropriation "Ammunition and other supplies for new ships" under appropriation "Ordnance and ordnance stores," it is requested that a clause be inserted providing that ammunition and other supplies already on hand or contracted for under appropriation "Armor and armament" shall be thereby transferred to appropriation "Ordnance and ordnance stores," the same as if purchased under that appropriation.

No increase in appropriation will result from the legalizing of the expenditure as indicated, it being needed simply to facilitate book-keeping and to prevent delays and expenses resulting from the constant transferring back and forth of the two appropriations "Armor and armament" and "Ordnance and ordnance stores."

The Department, therefore, earnestly requests that the note in question be made a part of the bill hereinbefore mentioned when it finally passes.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT,
BUREAU OF ORDNANCE,
Washington, D. C., January 28, 1907.

SIR: Referring to H. R. 24925 (Report No. 6713), making appropriation for the naval service for the fiscal year ending June 30, 1908, and for other purposes—

1. The Bureau invites attention to page 13, lines 21 and 22, "Ammunition and other supplies for new ships, \$750,000." In the

Bureau's estimates for this sum is attached a supplementary note, as follows:

Incident to the appropriation "Ammunition and other supplies for new ships," under appropriation "Ordnance and ordnance stores," it is requested that a clause be inserted providing that ammunition and other supplies already on hand or contracted for under appropriation "Armor and armament" shall be thereby transferred to appropriation "Ordnance and ordnance stores," the same as if purchased under that appropriation.

2. The Bureau earnestly recommends that this note be made a part of the bill when it finally passes.

3. In explanation of the necessity for this the Bureau incloses copy of a memorandum from the Paymaster-General of the Navy of this date.

4. It is to be borne in mind that no increase in appropriation will result from the legalizing of the expenditure as indicated, it being needed simply to facilitate bookkeeping and to prevent delays and expenses resulting from the constant transferring back and forth of the two appropriations, "Armor and armament" and "Ordnance and ordnance stores."

Respectfully,

N. E. MASON,
Chief of Bureau of Ordnance.

The SECRETARY OF THE NAVY.

[Memorandum for the Chief of the Bureau of Ordnance.]

NAVY DEPARTMENT,
BUREAU OF SUPPLIES AND ACCOUNTS,
Washington, D. C., January 28, 1907.

Under existing laws the Navy Department is required to maintain two separate property accounts—one of supplies purchased out of the appropriations for the increase of the Navy and one for supplies purchased out of the annual appropriations of its various bureaus.

All equipage (guns, boats, furniture, etc.) for new vessels is purchased out of the appropriations for the increase of the Navy; but until recently certain bureaus purchased the first outfit of supplies (as distinct from equipage) for such new vessels out of the same appropriations, while others procured such supplies out of their annual appropriations.

In order to establish a uniform practice and to prevent the appropriations for new vessels from being charged with the cost of supplies placed on board of them when first commissioned, the Department has recently directed the various bureaus to estimate in future for such supplies under their annual appropriations.

In future, therefore, all ammunition will be bought out of the appropriation for "Ordnance and ordnance stores." A large quantity of ammunition still remains on hand under the increase of the Navy stock, and, in order to bring it all under one head and to avoid the useless adjustments of appropriations now involved, it is recommended that it be transferred from the increase of the Navy account to the account "General stock." This transfer involves no appropriation, and is merely a bookkeeping transaction in order to simplify accounting.

The Bureau of Supplies and Accounts cordially approves of the recommendation of the Chief of the Bureau of Ordnance that all ammunition be carried under one account.

E. B. ROGERS,
Paymaster-General, U. S. Navy.

[No. 61.]

**TORPEDOES AND TORPEDO FACTORY (APPROPRIATION BILL)
DEPARTMENT LETTER.**

NAVY DEPARTMENT

Washington, January 30, 1907.

SIR: I have to inclose herewith, approved, copy of Bureau of Ordnance letter No. 19800 (G) of January 29, 1907, with inclosure, concerning the torpedo appropriations in the House naval bill just reported.

This torpedo question is an important one and the necessity of an increase in the appropriation for this year, as well as the provision for a torpedo factory, which will relieve the Government from an absolute dependence upon a monopoly, is considered extremely urgent.

In this connection, your attention is called to the last paragraph, page 5, of your report to the House, accompanying the bill, which would seem to give the impression that the committee intended to grant the necessary funds for the erection of the torpedo factory, although the item has been left out of the bill.

Your attention is also called to an error in the same paragraph where, I am informed by the Chief of the Bureau of Ordnance, the estimated cost of manufacture of a 21-inch torpedo by the Government should be \$5,000 or \$5,500, instead of \$3,500, as mentioned. This would still be a saving of \$1,500 on each torpedo according to the present contract prices.

Respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE E. FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives, Washington, D. C.*

NAVY DEPARTMENT, BUREAU OF ORDNANCE

Washington, January 29, 1907.

SIR: 1. In the naval appropriation bill as reported to the House of Representatives by the Naval Committee there are recommended reductions in the sums estimated by the Bureau and approved by the Department for certain items and certain other items have been altogether eliminated.

2. These reductions and eliminations the Bureau believes will retard progress toward preparedness for war, but the Bureau realizes that in certain instances other considerations than those which influenced the

Bureau in its estimates might have more weight with the legislative branch of the Government.

3. As regards certain other items in the Bureau's estimates, however, the situation which they were purposed to correct is so menacing to the general welfare and the common defense that the Bureau believes it would be derelict in its duty if it did not request the Department to urge upon the Congress a reconsideration of the items reduced or eliminated.

4. The Bureau in a letter to the Department (a copy of which is herewith transmitted) submitted a statement of the situation as regards torpedoes and made certain recommendations for the relief thereof. With the approval of the Department, the Bureau submitted estimates for carrying out these recommendations in its annual report and estimates. The items and amounts of these estimates and the recommendations of the Naval Committee thereon are shown in the following tabular statement:

	Estimated.	Recom- mended.
Equipping torpedo station for the manufacture of torpedoes.....	\$155,000	Eliminated.
Reserve torpedoes and appliances.....	500,000	\$250,000
Modernizing de-froyers and boats, and supply of torpedoes for modern- ized destroyers.....	616,000	300,000
Total.....	1,266,000	550,000

5. The letter inclosed herewith shows the situation as it exists to-day, and its most favorable aspect. The torpedoes on hand are insufficient to supply the torpedo vessels, and are old and worn. A large number are constantly under repair and the expenditure for the purpose is a considerable amount. Torpedoes are becoming unserviceable through loss and breaking up, and unless measures are taken at once to remedy the existing shortage, in a year we shall be able to supply torpedoes to no more than half of our torpedo vessels.

6. To indicate our relative lack of preparedness it is only necessary to consider that Great Britain has on hand 8,000 torpedoes and that one of the belligerents in the late war expended more torpedoes in a week than we have effective.

7. That something should be done is, in the opinion of the Bureau, not a debatable question; the only question is how to relieve the present situation. There is only one firm in the United States that builds torpedoes, and while they are now behind in contracts for torpedoes for the new ships, it is, of course, possible for this firm to increase its facilities and its consequent output. The Bureau believes, however, that the best interests of the Government would be served by the establishment of a torpedo factory. In reaching this conclusion the Bureau has considered not only the present needs but also those of the future, and, considering these future needs, the wisdom of the establishment of the factory is, in the opinion of the Bureau, indisputable.

8. In that part of the appropriation bill relating to increase of the Navy, there is included the following provision:

That the Secretary of the Navy may build any or all of the vessels herein authorized in such navy-yards as he may designate, and shall build any of the vessels herein authorized in such navy-yards as he may designate should it reasonably appear that the persons, firms, or corporations, or the agents thereof, bidding for the construction of any of said vessels have entered into any combination, agreement, or

understanding, the effect, object, or purpose of which is to deprive the Government of fair, open, and unrestricted competition in letting contracts for the construction of any of said vessels.

In the manufacture of torpedoes in the United States a monopoly exists closer than any combination of separate firms. When it is considered that to meet the needs of the Navy it will be necessary to build at least 2,000 torpedoes in the next ten years, at an expenditure of between seven and eight million dollars, it would surely seem unwise to have the Government in a matter involving such a sum, helplessly subject to the dictation of a monopoly which has not in the past shown any evidence of disinterested beneficence. It would seem to the Bureau that the only reason that would justify submission to such a condition would be the incapacity of the Government's agents to do the work required. Such incapacity, however, does not exist and the Bureau has at its disposal the necessary mechanical ingenuity and possesses also by assignment valuable torpedo patents. The Bureau therefore earnestly requests to be provided with the tools with which to do its work.

9. With regard to the items for the manufacture and purchase of torpedoes, the amounts asked for, the Bureau considers the minimum absolutely necessary. We have saved money in the past on torpedoes, and our present state of unpreparedness is the result; if we are to be prepared in the future we must spend money now. The torpedo fleet is unprepared for war in both quantity and quality of the weapons without which it has no reason for existence, and the failure to take decided measures to relieve the situation is, in the opinion of the Bureau, but simply inviting disaster.

Respectfully,

N. E. MASON,
Chief of Bureau of Ordnance.

The SECRETARY OF THE NAVY.

NAVY DEPARTMENT, BUREAU OF ORDNANCE,
Washington, D. C., October 17, 1906.

SIR: 1. The Bureau respectfully submits a statement of the torpedo situation for the consideration of the Department.

2. The following torpedoes are now on hand, available for issue to ships already commissioned or in reserve:

(a) Howell, 14.2-inch	27
(b) Schwartzkopff, 14.2-inch	12
(c) W-Bz., 3.68 m. by 45 cm., Mark IIB	8
(d) W-Bz., 5 m. by 45 cm., Mark IB	4
(e) W-BA., 5 m. by 45 cm., Mark IA	7
(f) W., 3.55 m. by 45 cm., Mark I	62
(g) W., 3.55 m. by 45 cm., Mark II	41
(h) W., 3.55 m. by 45 cm., Mark III	62
(i) W., 5 m., by 45 cm., Mark I	88
(j) W., 5 m., by 45 cm., Mark II	15

Total..... 328

3. Of these torpedoes the Howell can be used on the *Tow* and the *Montgomery* only; the Schwartzkopff and W-Bz., 3.68 m. by 45 cm., Mark IIB, can not be used on any ship, since no tubes are fitted; and the W., 3.55 m. by 45 cm., Mark I and W., 3.55 m. by 45 cm., Mark

II, are of short range, are not fitted with gyros and may be classed as obsolete. Deducting these, the actual torpedoes that can be regarded as serviceable are as follows:

W., 3.55 m. by 45 cm., Mark III	62
W-BA., 5 m. by 45 cm., Mark IA	7
W-Bz., 5 m. by 45 cm., Mark IB	4
W., 5 m. by 45 cm., Mark I	88
W., 5 m. by 45cm., Mark II	15
Total	176

Grouping these torpedoes by sizes and methods of firing, the situation is as follows:

3.55 m. by 45 cm. above-water discharge	62
5 m. by 45 cm. above-water discharge	99
5 m. by 45 cm. submerged discharge	15

4. From these torpedoes the following ships must draw their supply:

Fitted for 3.55 m. torpedoes:	
11 torpedo boats, needing 3 torpedoes each	33
7 torpedo boats, needing 2 torpedoes each	14
6 submarines, needing 5 torpedoes each	30
1 submarine, needing 3 torpedoes	3
Total	80
Available	62
Shortage	18

Fitted for 5 m. above-water discharge:	
16 destroyers, needing 4 torpedoes each	64
4 torpedo boats, needing 4 torpedoes each	16
9 torpedo boats, needing 3 torpedoes each	27
2 torpedo boats, needing 2 torpedoes each	4
1 submarine, needing 3 torpedoes	3
Total	114
Available	99
Shortage	15

Fitted for 5 m. submerged torpedoes:	
3 battle ships, needing 6 torpedoes each	18
Available	15
Shortage	3

5. The following Bliss-Leavitt high-powered torpedoes are in course of manufacture:

5 m. by 21-inch submerged discharge	300
5 m. by 45 cm. submerged discharge	50
5 m. by 45 cm. above-water discharge	50

6. The following vessels will draw their supply from these:

Fitted with 21-inch torpedoes:	
13 battle ships, needing 16 torpedoes each	208
2 battle ships, needing 8 torpedoes each	16
4 armored cruisers, needing 16 torpedoes each	64
3 scout cruisers, needing 8 torpedoes each	24
Total	312
Ordered	300
Shortage	12

Fitted for 5 m. by 45 cm. submerged discharge:	
6 armored cruisers, needing 8 torpedoes each	48
Ordered	50
Excess	2
Fitted for 5 m. by 45 cm. above-water discharge:	
4 submarines, needing 4 torpedoes each	16
3 destroyers, needing 6 torpedoes each	18
Total	34
Ordered	50
Excess	16

7. It is estimated that the *Vesuvius*, *Montgomery*, Naval Academy, and torpedo station will require all Bliss-Leavitt torpedoes shown in excess—two 5 m. by 45 cm. submerged discharge and sixteen 5 m. by 45 cm. above-water discharge—for instructional and experimental purposes.

8. The essential difference between the service Whitehead and the Bliss-Leavitt that prevents the use of the Bliss-Leavitt on vessels fitted for the use of the service Whitehead is one of air pressure; the service Whitehead requiring 1,350 pounds pressure and the Bliss-Leavitt 2,250 pounds. In order to use the Bliss-Leavitt or other modern torpedo on the older vessels it will be necessary to improve the air installation. This difference has to be considered in deciding upon measures of relief for the present situation.

9. Before, however, submitting its recommendations the Bureau desires to place before the Department a statement in regard to the new high-powered torpedoes.

Four years ago the E. W. Bliss Company, of Brooklyn, N. Y., which company holds the monopoly of the torpedo construction in the United States through possession of the patent rights, first proposed to the Bureau to build high-powered torpedoes on the turbine principle. After a number of experiments, contracts were entered into with this company, as follows:

Contract 187, January 11, 1904, for fifty 5 m. by 45 cm. torpedoes, to be delivered by October 1, 1905, at \$5,125 each.

Contract No. 205, dated March 29, 1905, for fifty 5 m. by 45 cm. torpedoes, to be delivered by November 1, 1905, at \$5,125 each.

Contract No. 229, dated November 22, 1905, for three hundred 5 m. by 21-inch torpedoes, at \$7,100 each, to be delivered as follows: 50 by January 1, 1907, 125 during the year 1907, and 125 during the year 1908.

There have been delivered to date 45 torpedoes under contract No. 187 and none under the others, save two 5 m. by 21-inch torpedoes bought without test for experimental purposes. The time of deliveries has been extended by the Bureau to October 12, 1906, for the torpedoes under contract No. 187, and to August 1, 1907, for torpedoes under contract No. 205.

10. The dates given for the final completion of contracts Nos. 187 and 205 are those fixed by successive extensions granted from time to time, either because of reasons advanced by the company or for the installation of desirable changes suggested by the Bureau. While specific reasons for extensions have been urged in almost all cases, the contractors have laid great stress upon the fact that this is a new device

and that delay and minor failures were therefore to be expected. This plea was submitted, however, after the delays and failures had occurred. Before the contract was awarded the company's communications were replete with promises of quick deliveries and wonderful performances. This plea has had great weight with the Bureau, but recent events have forced the Bureau to the belief that it has been used in cases where the delay and failure were not limited to those to be expected in the process of evolution, but were more due to the reluctance of the company to discard auxiliary devices of proved inefficiency, at an expense to itself and to inferior workmanship, than to any other causes, the company hoping to pass the tests required by good luck and tinkering or, in case of failure, to have the tests modified to fit the capabilities of the torpedoes.

11. The Bureau has resisted the efforts of the contractors to force the acceptance of inferior weapons, but in all its dealings with this company concerning torpedoes the Bureau has been handicapped by the knowledge that, due to the monopoly held by the company, the Bureau would have to accept the terms offered or get no torpedoes. The Bureau has become convinced that a belief in the helplessness of the Government has influenced the E. W. Bliss Company in its prices, deliveries, and workmanship.

12. The Bureau acknowledges the fact that the E. W. Bliss Company deserves some consideration for its development of the high-powered torpedo, but the Bureau has statements from the company itself which indicate that this fact was not overlooked in fixing the prices to be paid by the Government.

13. While the Bureau has for some time realized that absolute dependence upon the E. W. Bliss Company for our supply of torpedoes was a situation of serious disadvantage to the Government, it is only in the immediate past that the Bureau has felt that it was able to do its part in providing the obvious remedy for the situation. During the past year, however, there have been developed at the torpedo station improved forms of the various devices that go to make the torpedo, and the Bureau believes that, the plant being provided, the Navy can manufacture torpedoes in competition with the E. W. Bliss Company, and that an increase in efficiency and a decrease in the cost of the weapon will result.

That there may be a question of patent rights to be decided the Bureau admits; but the improvements already made and tested and those in course of development are so radical as to lead the Bureau to believe that the Government is in a position to attain full rights of manufacture on reasonable financial terms.

14. That the situation is such as to justify the step, it is only necessary to consider our present pitiable condition as compared with other first-class naval powers, the inadequacy and unreliability of our present source of the supply, and the fact that to supply the needs of the service and provide for a proper reserve we should manufacture 1,000 torpedoes at a cost of approximately \$6,500,000. Four hundred of these torpedoes have been contracted for and the facilities of the only source of supply will be taxed to the utmost to complete them before January 1, 1909. The E. W. Bliss Company can of course add to its equipment, but the advantages of competition, the superiority of workmanship to be expected, and the independence that will result

leads the Bureau to strongly urge the equipment of the torpedo station as a torpedo factory.

15. Such a factory would prevent a repetition of the present situation and, working in conjunction with the E. W. Bliss Company, provide in time for all our needs; but the equipment will require time to complete, and the present situation requires immediate action if it is to be relieved within a reasonable time. Since the necessary torpedoes to arm our ships are not available and can not be obtained in the United States without great delay, the Bureau sees no recourse save to purchase them abroad. The Bureau makes such a recommendation with great reluctance, but, in view of all the circumstances, the Bureau believes that the purchase abroad of one hundred 5 m. by 45 cm. high-powered torpedoes would be justifiable. That objections may be urged against such a course the Bureau is aware, but in view of the fact that the only beneficiaries of the opposite course would be a monopoly who, besides not being able to supply the Government's needs, have in the past unhesitatingly taken advantage of the Government that protects it.

16. The Bureau submits the following estimates for carrying out its recommendations, and has included these amounts in its annual report. In case these sums are appropriated, the Bureau recommends that they be made immediately available.

Equipping torpedo station	\$155,000
Reserve torpedoes and appliances to be manufactured at the torpedo factory	500,000
Equipping 16 destroyers to use high-powered torpedoes.....	80,000
Equipping 11 torpedo boats to use 5 m. torpedoes.....	36,000
To the purchase of torpedoes abroad.....	500,000
Total	1,271,000

17. The Bureau has thus laid the situation before the Department, and earnestly requests that the matter be brought to the attention of the Congress and that the Congress be urged to relieve a situation which, if it existed at the opening of a war with a first-class naval power, could not but lead to national humiliation.

Respectfully,

N. E. MASON,
Chief of Bureau of Ordnance.

The SECRETARY OF THE NAVY.



[No. 62.]

RECRUITING (APPROPRIATION BILL) DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, February 1, 1907.

SIR: Referring to this Department's letter of the 8th ultimo, bringing to the attention of the committee the matter of the adjustment of certain checkages made against recruiting officers of the Navy, I have the honor to request, if in your judgment the matter is one that should properly be considered by the Committee on Appropriations with reference to its insertion in the general deficiency bill, that the papers and this Department's recommendation in the premises be referred to that committee.

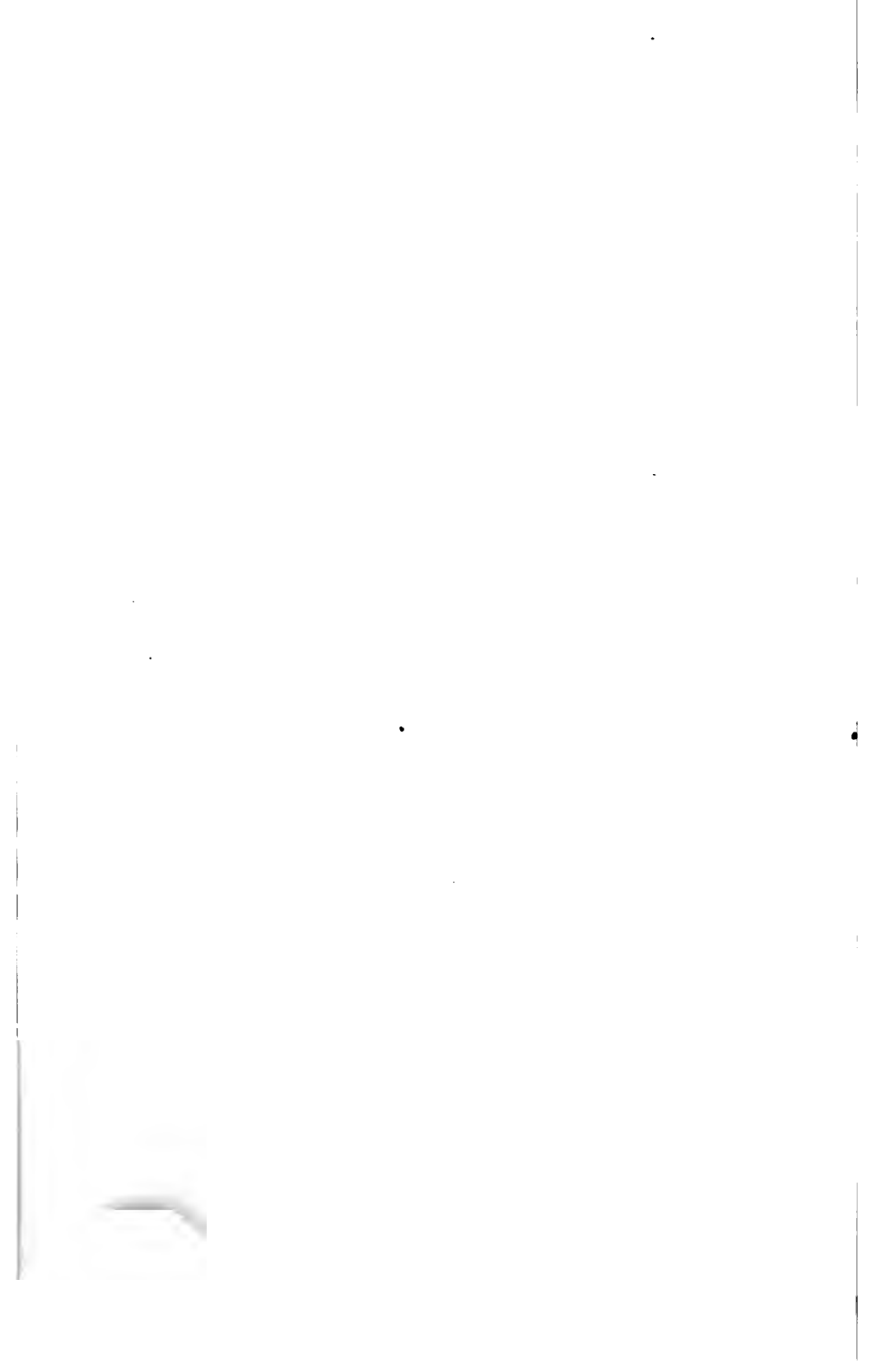
Very respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

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[No. 63.]

**RELIEF OF JABEZ BURCHARD (H. R. 22173)—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, February 1, 1907.

SIR: In compliance with request contained in your letter of the 19th instant I have the honor to submit herewith the following statement respecting the bill (H. R. 22173) "for the relief of Jabez Burchard:"

On October 28, 1874, Assistant Engineer Burchard was transferred to the retired list of the Navy for a physical disability not due to an incident of the service, in accordance with the provisions of section 1454 of the Revised Statutes. * * *

The Department afterward determined that the examining board was in error in finding Mr. Burchard's incapacity as not due to an incident of the service, and attempted to transfer him to the higher rate of pay (three quarters sea pay) allowed to officers by section 1588 of the Revised Statutes. The courts held that the Department did not have this authority and Mr. Burchard has continued to be regarded as having been retired for disability which was not due to an incident of the service.

In view of these circumstances, the Department recommends that the act under consideration, for the relief of Mr. Burchard, be favorably considered.

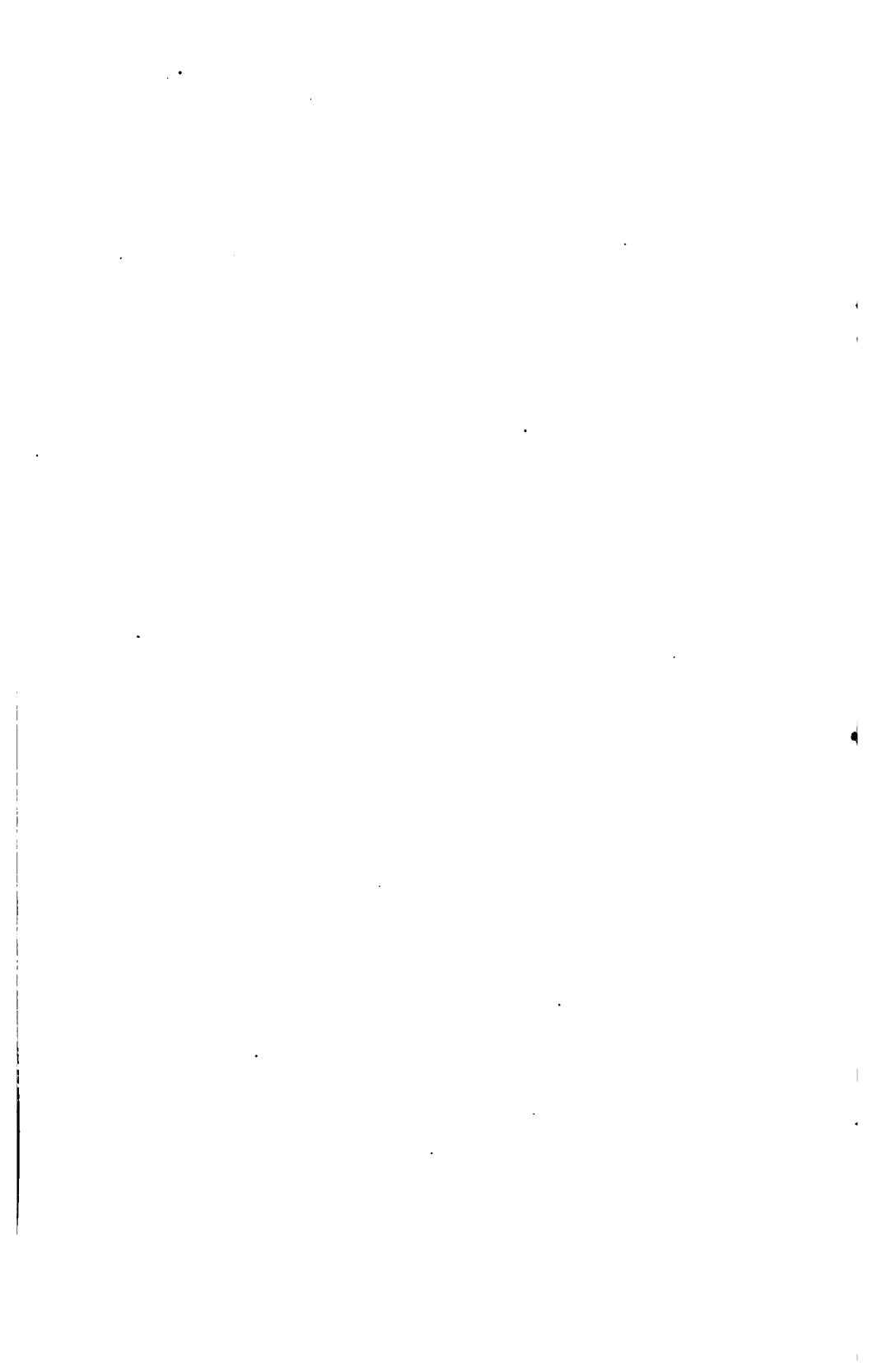
Very respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE EDMUND FOSS,
*Chairman, Committee on Naval Affairs,
House of Representatives.*

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[No. 64.]

**PURCHASE OF LAND AT NAVY-YARD, WASHINGTON, D. C.—
DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, February 2, 1907.

SIR: Referring to the estimates submitted by this Department for the purchase of land at the navy-yard, Washington (\$161,872, Book of Estimates, p. 509), it is recommended that legislation be enacted authorizing the closing of Ninth and Tenth streets east, south of the south building line of O street south, upon the acquirement by the United States of title to all of the property abutting on said portions of Ninth and Tenth streets, and authorizing the Department to take possession thereof for naval purposes.

Similar action was taken when the navy-yard was extended several years ago. (Act of Mar. 3, 1903, 32 Stat. L., p. 1186.)

A draft of a clause providing for the reservation for naval purposes of the portions of the streets above mentioned, contingent upon the acquirement by the United States of title to all properties abutting thereupon, is inclosed, it being requested that, if the committee approve, this clause be inserted in the pending bill making appropriations for the naval service.

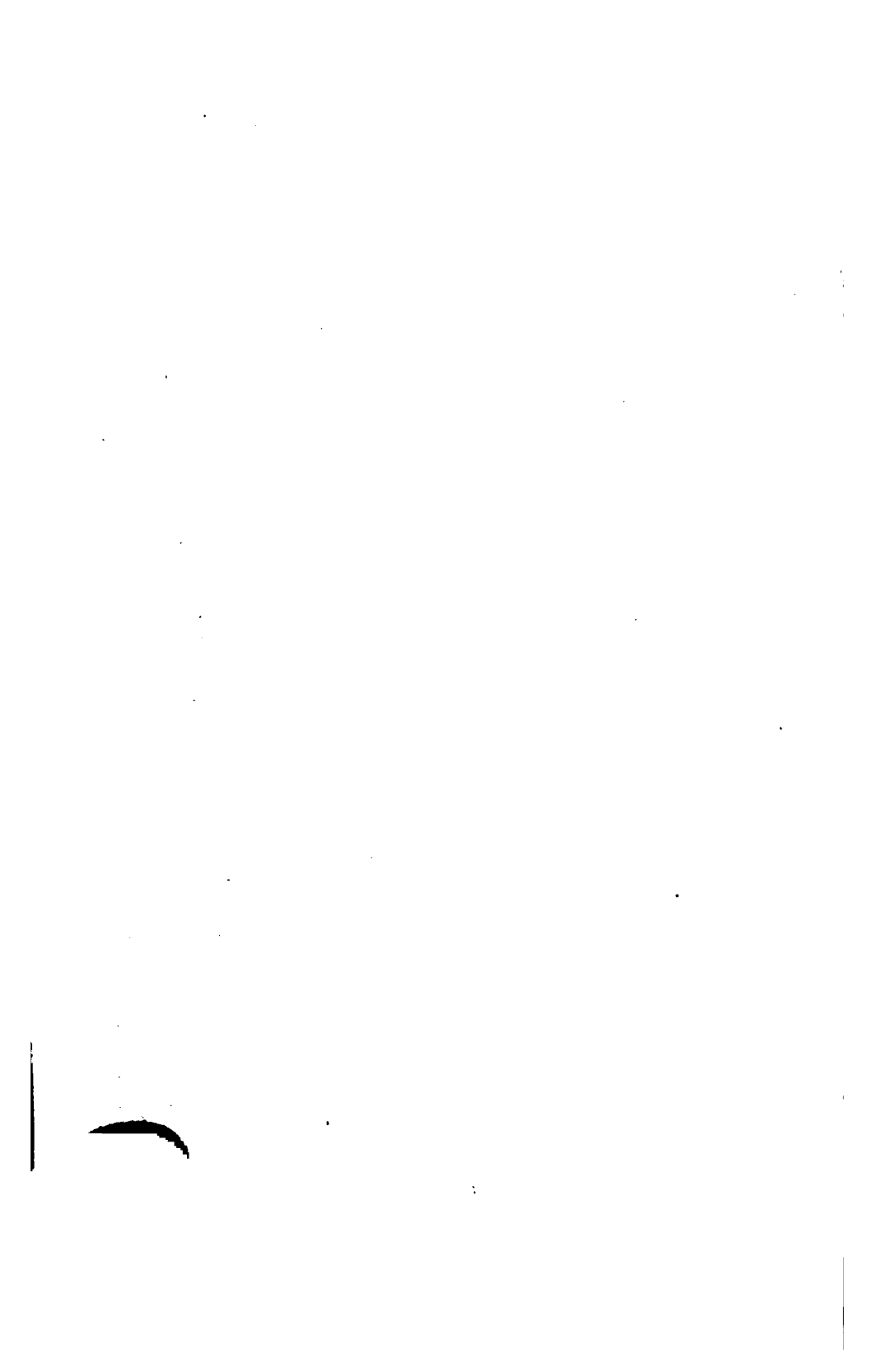
Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

Draft of clause to be inserted in naval appropriation bill, under general title "Public works, Bureau of Yards and Docks, navy-yards and stations," subheading "Navy-yard, Washington, District of Columbia," after last sentence:

And upon the acquirement by the United States of title to all property abutting on Ninth street east and Tenth street east, between the south building line of O street south and the eastern branch of the Potomac River, and between the west building line of Eleventh street east and the east wall of the navy-yard, in the city of Washington, District of Columbia, all portions of Ninth street east and Tenth street east lying within such boundaries shall be abandoned and closed, and the Secretary of the Navy is authorized to take possession thereof, and said portions of said streets shall be regarded as set apart and reserved for naval purposes.



[No. 65.]

**AMMUNITION AND SUPPLIES FOR NEW SHIPS (APPROPRIATION
BILL) DEPARTMENT LETTER.**

BUREAU OF ORDNANCE,
Washington, D. C., February 2, 1907.

SIR: In compliance with your request of to-day, per telephone:

1. The Bureau requests that the clause of the naval appropriation bill (H. R. 24925), page 13, lines 21 and 22, "ammunition and other supplies for new ships, seven hundred and fifty thousand dollars," be amended to read as follows:

Ammunition and other supplies for new ships, seven hundred and fifty thousand dollars: *Provided*, That immediately after the passage of this act all ammunition and other supplies already on hand under appropriation increase of the navy, armor, and armament shall thereby be transferred to the appropriation ordnance and ordnance stores the same as if purchased under that appropriation, and that this change of title shall be effected without a charge against the appropriation ordnance and ordnance stores:

Provided further, That after the passage of this act all ammunition and other supplies now contracted for under the appropriation increase of the navy, armor, and armament shall be transferred to the appropriation ordnance and ordnance stores immediately after such ammunition and other supplies have been delivered and paid for, and that this change of title shall be effected without a charge against the appropriation ordnance and ordnance stores.

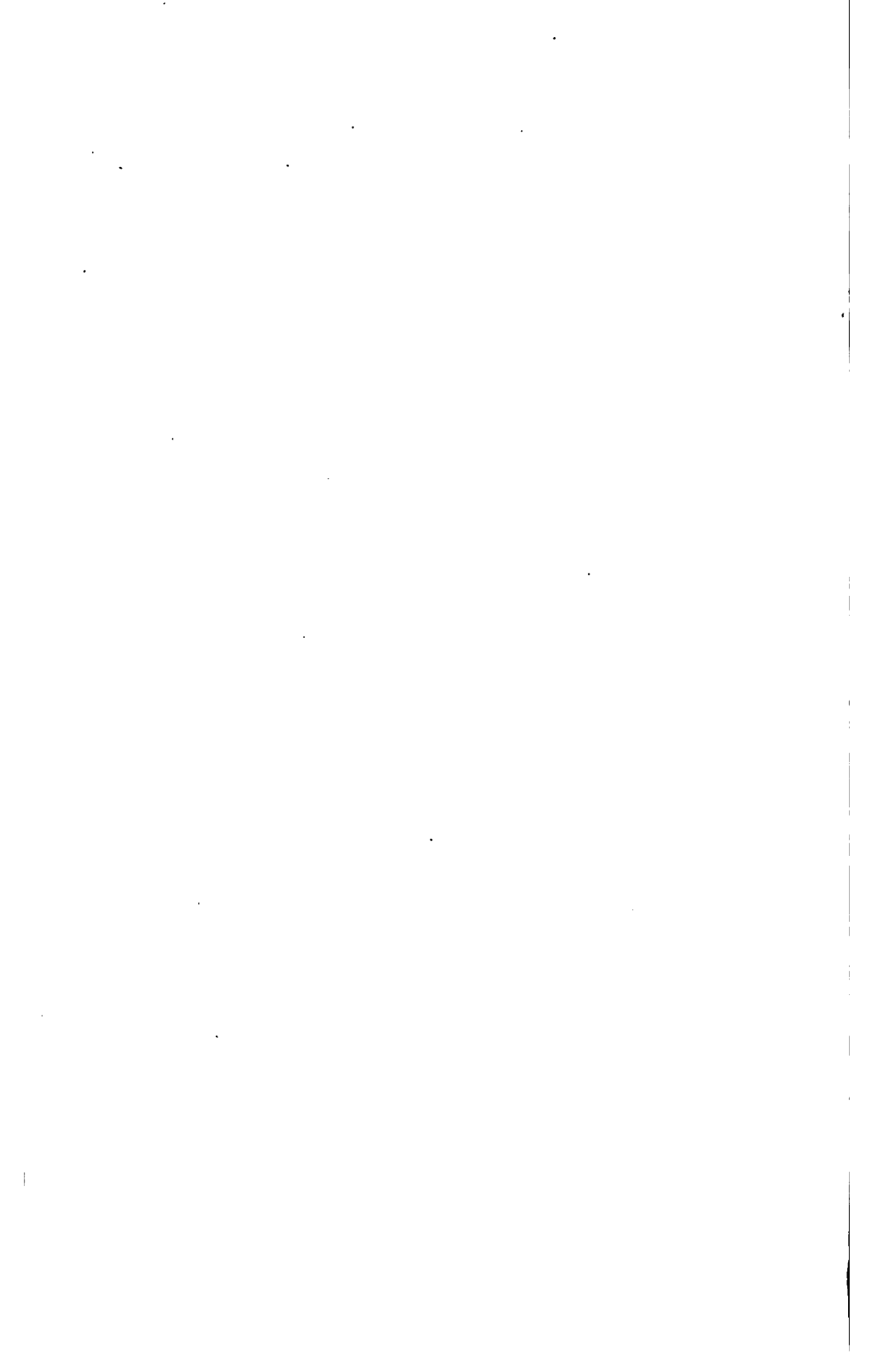
Respectfully,

N. E. MASON,
Chief of Bureau of Ordnance.

Hon. G. E. Foss, M. C.,
*Chairman Committee on Naval Affairs,
House of Representatives, Washington, D. C.*

(445)

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TO

HEARINGS AND COMMUNICATIONS BEFORE THE HOUSE COMMITTEE ON NAVAL AFFAIRS, 1906-7, FIFTY-NINTH CONGRESS, SECOND SESSION.

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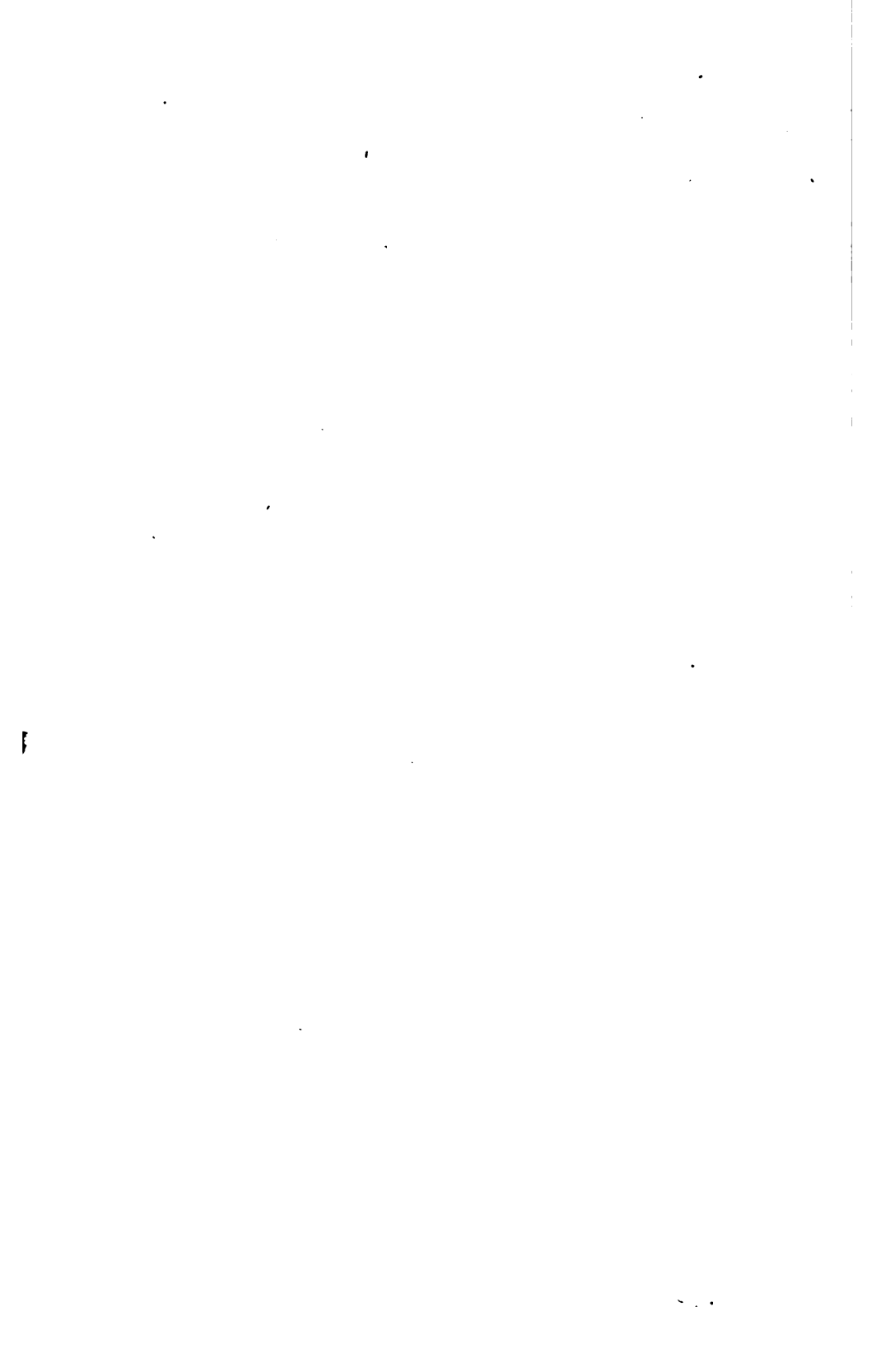
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